

MODEL W1689

15" Wide Belt Sander



INSTRUCTION MANUAL

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THE INFORMATION IN THIS MANUAL REPRESENTS THE CONFIGURATION OF THE MACHINE AS IT IS CURRENTLY BEING SHIPPED. THE MACHINE CONFIGURATION CAN CHANGE AS PRODUCT IMPROVEMENTS ARE INCORPORATED. IF YOU OWN AN EARLIER VERSION OF THE MACHINE, THIS MANUAL MAY NOT EXACTLY DEPICT YOUR MACHINE. CONTACT CUSTOMER SERVICE IF YOU HAVE ANY QUESTIONS ABOUT DIFFERENCES. PREVIOUS VERSIONS ARE NOT AVAILABLE ONLINE.

WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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INTRODUCTION

About Your New Sander

Your new SHOP FOX® Sander has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

The Model W1689 is a very versatile and easy to use sander. The wide belt sanding action combined with the pneumatic oscillation produces near finish quality results every time.

Woodstock International, Inc. is committed to customer satisfaction in providing this manual. It is our intent to make sure all the information necessary for safety, ease of assembly, practical use and durability of this product be included.

If you should have any comments regarding this manual, please feel free to contact us at:

Woodstock International, Inc.
Attn: Technical Department
P.O. Box 2309
Bellingham, WA 98227

Woodstock Service and Support

We stand behind our machines! In the event that a defect is found, parts are missing or questions arise about your machine, please contact Woodstock International Service and Support at 1-360-734-3482 or send e-mail to: tech-support@woodstockint.com. Our knowledgeable staff will help you troubleshoot problems, send out parts or arrange warranty returns.

Warranty And Returns

Woodstock International, Inc. warrants all SHOP FOX® machinery to be free of defects from workmanship and materials for a period of 2 years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or to repairs or alterations made or specifically authorized by anyone other than Woodstock International, Inc.

Woodstock International, Inc. will repair or replace, at its expense and at its option, the SHOP FOX® machine or machine part which in normal use has proven to be defective, provided that the original owner returns the product prepaid to the SHOP FOX® factory service center or authorized repair facility designated by our Bellingham, WA office, with proof of their purchase of the product within 2 years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that SHOP FOX® machinery complies with the provisions of any law or acts. In no event shall Woodstock International, Inc.'s liability under this warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of our products.

Every effort has been made to ensure that all SHOP FOX® machinery meets high quality and durability standards. We reserve the right to change specifications at any time because of our commitment to continuously improve the quality of our products.

Machine Specifications

Sanding Motor Size	5 HP, 220V, Single-Phase
Sanding Motor Speed	3450 RPM
Conveyor Motor Size.....	1/4 HP, 220V, Single-Phase
Total Amps (Both Motors)	27.8A
Maximum Board Width.....	15"
Maximum Board Thickness.....	5 1/2"
Minimum Board Length	12"
Surface Speed Of Drums	2050 FPM
Conveyor Feed Rate	13 & 16.4 FPM
Machine Weight	815 lbs
Dust Port	5"

SAFETY FIRST!

**READ MANUAL BEFORE OPERATING MACHINE.
FAILURE TO FOLLOW INSTRUCTIONS BELOW WILL
RESULT IN PERSONAL INJURY.**



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury, **MAY** result in property damage.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the equipment.

Standard Safety Instructions

1. **Thoroughly read the instruction manual before operating your machine.** Learn the applications, limitations and potential hazards of this machine. Keep manual in a safe, convenient place for future reference. Make sure any other operators have read and understand the manual as well.
2. **Keep work area clean and well lighted.** Clutter and inadequate lighting invite potential hazards.
3. **Ground all tools.** If a machine is equipped with a three-prong plug, it must be plugged into a three-hole grounded electrical outlet or grounded extension cord. If using an adapter to aid in accommodating a two-hole receptacle, ground using a screw to a known ground.
4. **Wear eye protection at all times.** Use safety glasses with side shields or safety goggles that meet the national safety standards, while operating this machine.
5. **Avoid dangerous environments.** Do not operate this machine in wet or open flame environments. Airborne dust particles could cause an explosion and severe fire hazard.
6. **Ensure all guards are securely in place** and in working condition.
7. **Make sure switch is in the "OFF" position** before connecting power to machine.
8. **Keep work area clean, free of clutter, grease, etc.**
9. **Keep children and visitors away.** Visitors should be kept at a safe distance away while operating unit.
10. **Childproof workshop** with padlocks, master switches or by removing starter keys.
11. **Disconnect machine when cleaning, adjusting or servicing.**

12. **Do not force the machine.** The machine will do a safer and better job if IT does the work.
13. **Use the correct tool.** Do not force the tool or attachment to do a job for which it was not designed.
14. **Wear proper apparel.** Do not wear loose clothing, gloves, jewelry, keep long hair tied up, etc.
15. **Remove adjusting keys and wrenches.** Before turning the machine on, make a habit of checking that all adjusting keys and wrenches have been removed before turning the machine *ON*.
16. **Use proper extension cord.** Examine the extension cord to ensure it is in good condition. Use the chart below to determine the correct length and gauge of extension cord needed for your particular needs. The amp rating of the motor can be found on its nameplate. If the motor is dual voltage, be sure to use the amp rating for the voltage you will be using. If you use an extension cord with an undersized gauge or one that is too long, excessive heat will be generated within the circuit increasing the chance of a fire or damage to the circuit. Never use an extension cord that does not have a ground pin and connected ground wire. Immediately replace an extension cord if it shows any signs of damage.
17. **Keep stable footing and balance** at all times.
18. **Do not leave machine unattended.** Wait until it comes to a complete stop before leaving the area.
19. **Perform machine maintenance and care.** Follow lubrication and accessory attachment instructions in the manual.
20. **Keep machine away from open flame.** Operating machines near pilot lights and/or open flames creates a high risk if dust is dispersed in the area. Dust particles and an ignition source may cause an explosion. Do not operate the machine in high-risk areas, including but not limited to, those mentioned above.
21. **If at any time you are experiencing difficulties** performing the intended operation, stop using the machine! Then contact our Service Department or ask a qualified expert how the operation should be performed.
22. **Habits—good and bad—are hard to break.** Develop good habits in your shop and safety will become second-nature to you.

Extension Cord Requirements

Amp Rating	Length And Gauge		
	25ft	50ft	100ft
0-6	#18	#16	#16
7-10	#18	#16	#14
11-12	#16	#16	#14
13-16	#14	#12	#12
17-20	#12	#12	#10
21-30	#10	#10	No

 WARNING

Operating this equipment creates the potential for flying debris to cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).







Additional Safety Instructions For Sanders

SAFETY

1. **Always wear a dust mask.** Sanding operations create large amounts of fine dust. Some types of dust may cause allergic reactions or respiratory problems. In addition to wearing a dust mask, always use a dust collector and overhead air filter for maximum protection.
2. **Do not allow your fingers to get pinched between the board and the conveyor belt during feeding.** The grip of the conveyor belt may pull the operator's hand into the machine and cause serious injury or death. Similarly, do not place hands near the sanding belts during operation.
3. **Know the limits of the sander.** Do not sand stock thinner than 1/8" or shorter than 9".
4. **Never perform sanding operations with the access doors open.**
5. **Always inspect stock for staples, nails, dirt or other foreign objects before sanding.** These items may cause damage to your sander or may even be thrown at a high rate of speed from the sander at the operator.
6. **Never allow anyone to stand directly in front or behind the path of the stock as it is being fed through the sander.** The stock may be ejected at a high rate of speed and could cause serious injury to the operator or bystanders.
7. **Treat your sander with respect.** Do not force stock into the sander during operation or overload the sanding drums beyond reasonable limits. Also, only sand natural wood fiber through your sander. Other materials may damage your machine and open the possibility for operator injury. Keep the internal components clean and lubricated to ensure that the sander can perform the way it was intended.
8. **Never operate the sander without a working dust collection system.** The sander is designed to properly do its job only when wood dust is being evacuated. The buildup of too much wood dust in the internal components will cause performance problems and may increase the likelihood of operator injury.
9. **Wear the proper clothing during all operation and adjustments.** Loose clothing or long hair creates the potential for operator injury because they can easily be caught in the moving parts of the machine. Roll up loose sleeves, tie back long hair and take any other necessary steps to reduce this hazard.



MODEL W1689
15" Wide Belt Sander



INSTRUCTION MANUAL

! WARNING

Read and understand this entire instruction manual before performing any operations with your machine. Serious personal injury may occur if safety and operational information is not understood and followed.

! CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to follow guidelines could result in serious personal injury, damage to equipment or poor work results.

Avoiding Potential Injuries



Figure 1. Correct operation.



Figure 2. DO NOT operate without safety glasses/dust mask!



Figure 3. DO NOT stand behind workpiece!



Figure 4. DO NOT operate with door open!



Figure 5. DO NOT allow hand to get pinched in belt!

Electrical Requirements

220V Operation

The SHOP FOX® W1689 has a 5 HP, 220V single-phase sanding motor and a 1/4 HP, 220V feed motor. Both of these motors combined draw approximately 27.8 amps under load.

Use a 30 amp circuit breaker in a circuit that has wiring rated to handle this amperage draw. Keep in mind that a circuit being used by other machines or tools at the same time will add to the total load being applied. Add up the load ratings of all machines on the circuit. If this number exceeds the rating of the circuit breaker or wiring, use a different circuit.

Extension Cords

We do not recommend using an extension cord for 220V equipment. Instead, arrange the placement of your machinery and installed wiring to eliminate the need for extension cords. If you must use an extension cord, make sure it is rated Hard Service (grade S) or better. The extension cord must always contain a ground wire and plug pin. Always repair or replace extension cords when they become worn or damaged.

Grounding

This machine must be grounded! The electrical cord supplied with the Model W1679 does not come with a 220 volt plug. Use a NEMA-style 6-30 plug and outlet similar to **Figure 6**. Make sure your ground source is verified!

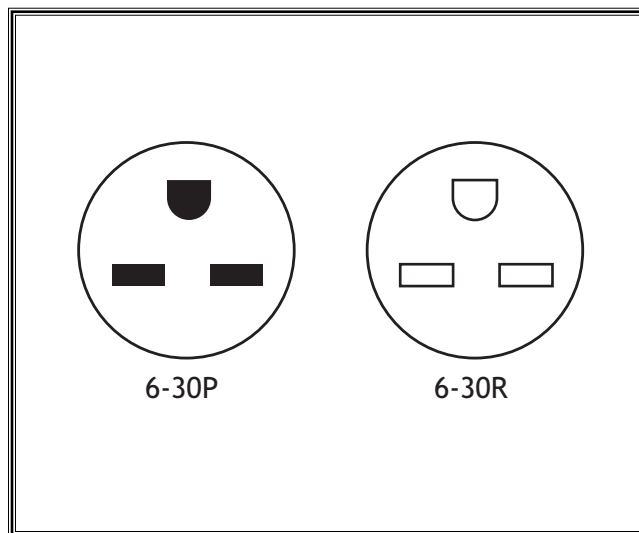
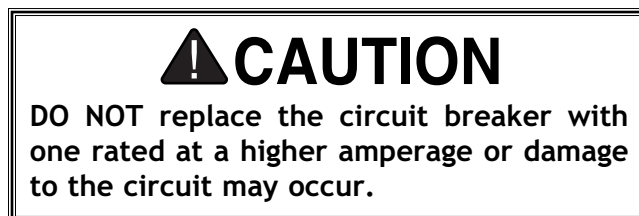
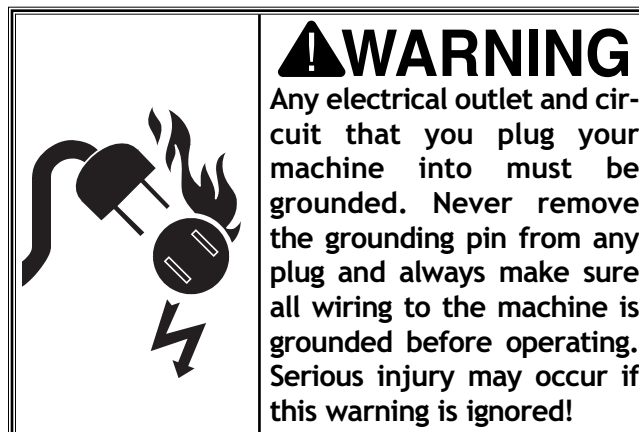



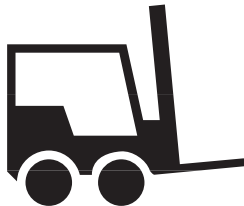
Figure 6. This is a typical NEMA-style 6-30 plug and outlet.

ASSEMBLY INSTRUCTIONS



! WARNING

Read and understand this entire instruction manual before performing any operations with your machine. Serious personal injury may occur if safety and operational information is not understood and followed.



! WARNING

The Model W1683 is a heavy machine at 815 lbs. Use power or hydraulic equipment to avoid serious personal injury or death.

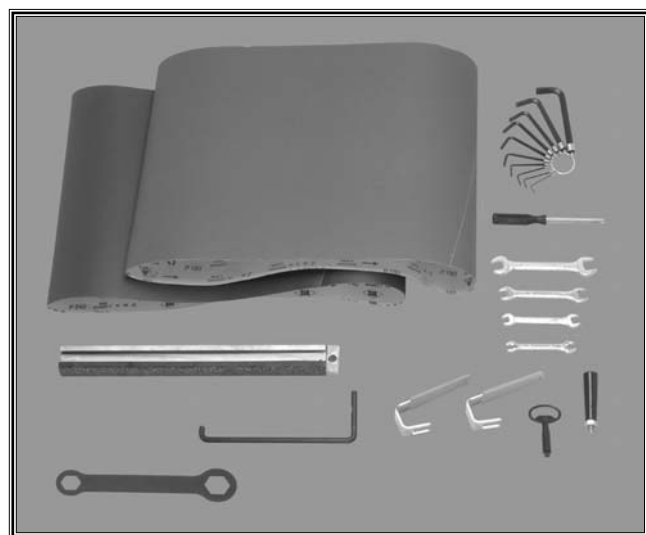


Figure 7. These are the loose parts shipped with the sander.

Unpacking

The Model W1689 has been carefully packaged for safe transporting. If you notice the machine has been damaged, please contact Woodstock International Service and Support at 1-360-734-3482 or send e-mail to: tech-support@woodstockint.com.

Box Contents

The following is a description of the components shipped with the SHOP FOX® W1689. Lay the components out in a similar fashion to those in **Figure 7**. This will help in identification before beginning assembly. Should any part be missing, examine the packaging carefully. If any parts are missing, find the part number in the back of this manual and call Woodstock International, Inc. at 360-734-3482 or e-mail: tech-support@woodstockint.com.

Item	Qty.
Sander	(1)
Tool Box	(1)
Combination Wrench 8 x 10MM	(1)
Combination Wrench 11 x 13MM	(1)
Combination Wrench 12 x 14MM	(1)
Combination Wrench 17 x 19MM	(1)
Box Wrench 30 x 37MM	(1)
Phillips Screwdriver	(1)
10-Piece Hex Wrench Set	(1)
Door Handles	(2)
Platen	(1)
Platen Puller	(1)
Handwheel Handle	(1)
Sanding Belt #180	(1)
Sanding Belt #240	(1)

Shop Preparation

- **Floor Load:** Your sander represents a large weight load in a small footprint. Most commercial floors are suitable for the sander. Some residential floors may require additional bracing to support both machine and operator.
- **Working Clearances:** Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your sander.
- **Lighting and Outlets:** Lighting should be bright enough to eliminate shadows and prevent eye strain. Electrical circuits should be dedicated or large enough to handle amperage requirements. Outlets should be located near each machine so power or extension cords are clear of high-traffic areas. Observe local electrical codes for proper installation of new lighting, outlets, or circuits.



⚠ CAUTION

Always make sure that all entrances to your shop are locked or that machines are equipped with safety lock-out devices to protect curious children or visitors from serious injury. Never allow unsupervised people in your shop who have not been fully trained!

Cleaning Machine

The table and other unpainted parts of the Model W1689 are coated with a waxy grease that protects them from corrosion during shipment. **For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated.** Clean this grease off with a solvent cleaner or citrus-based degreaser. Do not use chlorine-based solvents—if you happen to splash some onto a painted surface, you will ruin the finish.



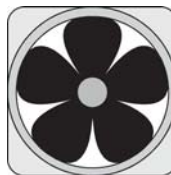
⚠ WARNING

Never use flammables such as gas or other petroleum-based solvents to clean your machine. These products have low flash points and present the risk of explosion and severe personal injury!



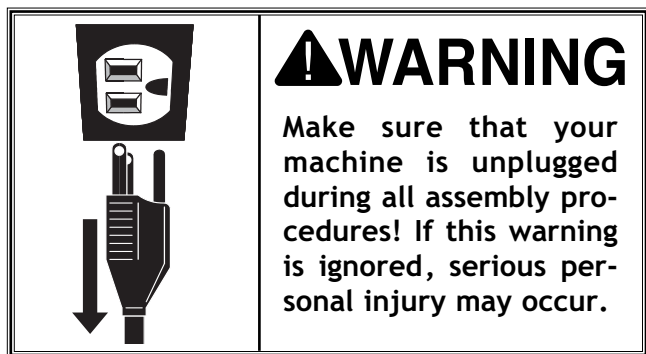
⚠ WARNING

Never smoke while using any cleaning solvents. Smoking may cause explosion or risk of fire when exposed to these products!



⚠ CAUTION

Most solvents used to clean machinery are toxic when inhaled or ingested. When using these products, work in a well ventilated area and keep away from any potential ignition sources (pilot lights). Always dispose of any waste rags in a sealed container to make sure they do not cause fire or environmental hazards.



Beginning

Although the main components of the SHOP FOX® W1689 are assembled at the factory, some assembly is required. The following series of instructions are the recommended sequence best suited for final assembly.

Tools required that are not included: A high quality straightedge, a 45° angle gauge and an adjustable wrench.

Handwheel Handle

Install the handle on the handwheel as follows:

1. Make sure that the jam nut is threaded completely onto the handle.
2. Use a flat-head screwdriver to thread the handle all the way into the handwheel as shown in **Figure 8**.
3. Unthread the handle $\frac{1}{2}$ a turn to make the plastic sleeve loose enough rotate around the handle freely.
4. Tighten the jam nut down to the handwheel.



Figure 8. Handle installed on handwheel.

Installing Platen

Install the platen into the sander as follows:

1. Facing the front of the sander, open the left hand access door with the included door handle.
2. Directly below the adjustment knob is a slide housing for the platen. Locate the slide housing and install the platen so that the graphite pad is on the left-hand side. **Figure 9** shows the correct insertion of the platen.

When the platen is inserted correctly, it must be set even with the sanding belt rollers as follows:

1. Lower the conveyor table down as far as it will go, so that you have enough room to work under the sanding belt rollers.
2. Place a straightedge across the bottom of both sanding belt rollers.
3. Using the platen adjustment knob shown in **Figure 10**, position the platen so that it barely touches the straightedge, and thus, is even with both sanding belt rollers.

The platen at level position is an important reference point for future operations.

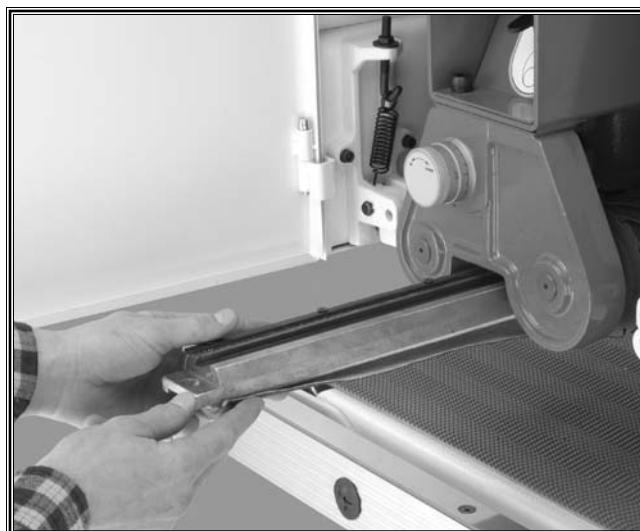


Figure 9. Installing platen.

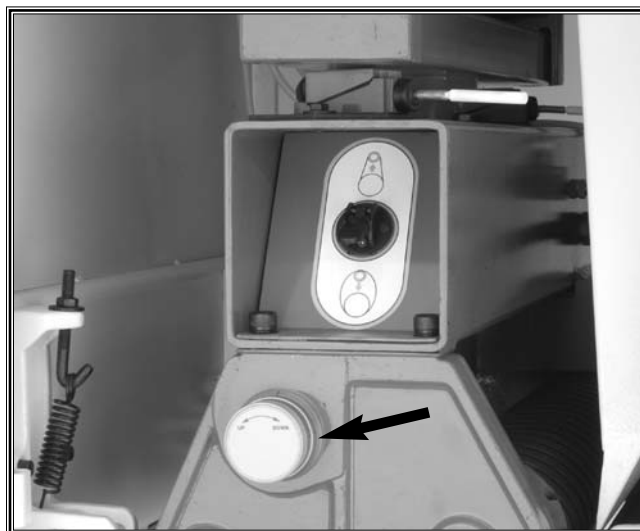


Figure 10. Platen adjustment knob.



Figure 11. Air hose attached to regulator.

Attaching Air Hose

The regulator on the front of the sander has a nozzle for attaching the air hose. Connect your air hose and clamp it in place with a hose clamp as shown in **Figure 11**. If you prefer, you can replace the included air nozzle with a $\frac{3}{8}$ " male quick connect air coupling.

When the air hose is installed, regulate the air pressure to 75 PSI. This is the required operating pressure for this sander.

NOTICE

DO NOT exceed 75 PSI or damage to the air system may result!

NOTICE

Keep the air pressure shut off when not in use to reduce wear and tear on the air system.



Figure 12. Installing sanding belt over rollers.
The arrows on the inside must point in the same direction as belt rotation.

Installing Sanding Belt

The sanding belt must be installed from the left side of the sander. Before installing, make sure the protective grease has been cleaned (as described in "Cleaning Machine" instructions) from the metal sanding belt rollers.

Pay special attention to the direction of the arrows on the inside of the sanding belt. These arrows show the direction that the sanding belt is designed to rotate during operation. Facing the inside of the left-hand access door, the sanding belt will rotate counterclockwise.

Install the sanding belt as shown in **Figure 12** and center it on the rollers.

Tensioning Belt

The switch shown in **Figure 13** controls the sanding belt tension. When the air pressure is connected and the switch is flipped up, the belt will automatically tighten to the correct tension. Flipping the switch down will immediately release the belt tension. *The belt tension will only engage while the sander has air pressure. Likewise, the belt tensioner may not work correctly if the air pressure is not set to the required 75 PSI.*

NOTICE

The belt must be tightened before starting the sander!

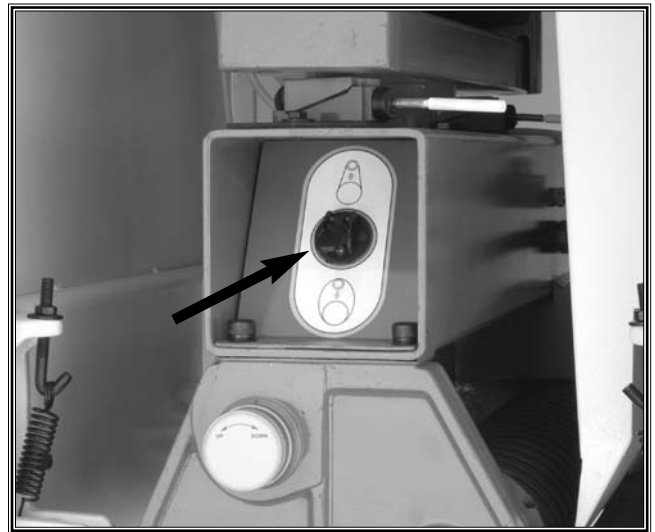


Figure 13. Belt tension switch.

Pressure Rollers

The pressure rollers are factory set, but we recommend checking them as follows to minimize the potential for personal injury:

1. Make sure that the sander is unplugged from the power!
2. Make sure that the platen is even with the sanding belt rollers before continuing.
3. Obtain a board of uniform thickness that is at least 24" long. Place the board in the center of the conveyor belt and position it directly under both the front and rear pressure rollers.
4. The air pressure should be connected and the sanding belt should be installed and tensioned for this next step. Look underneath the sanding head at the pressure rollers and sanding belt. Slowly raise the table and confirm that the board makes contact with both pressure rollers before it touches the sanding belt.

If the board DOES NOT make contact with both pressure rollers before touching the sanding belt, then the pressure rollers must be adjusted. Refer to the *Adjustments* section for step-by-step instructions on how this can be done.

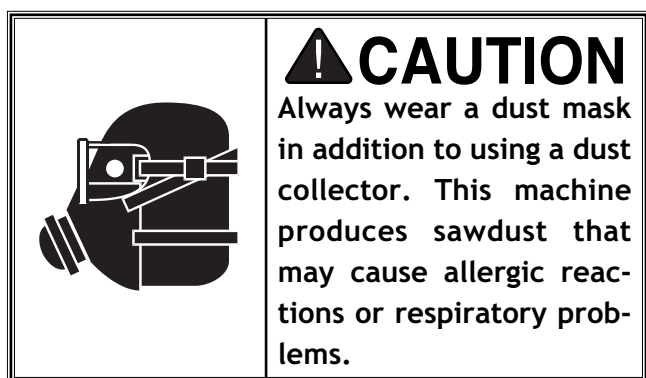
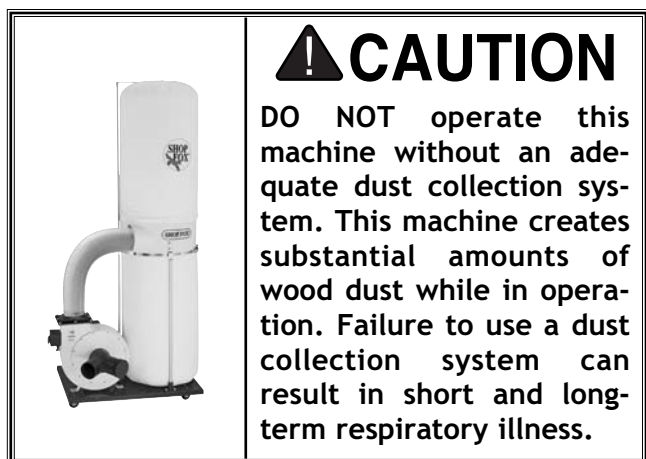


Figure 14. Dust collection hose attached to dust port.

Dust Collection

The Model W1689 features a 5" dust port that is located on top of the machine. Before performing any sanding operations, a working dust collector must be attached to the sander as shown in Figure 14.

The dust collector that is attached to the Model 1689 must be able to move 800-1200 CFM at the sander dust port. Make sure that your dust collector and dust collection system have the ability to move this volume of dust, or dust buildup will affect the performance of your sander.

A fine layer of dust may be present on your stock as it comes out of the sander. This is normal.

ADJUSTMENTS

General Information

The adjustments in this section have been factory set and generally do not need to be performed when you first receive your sander; however, we suggest that you become familiar with these adjustments before operating your sander. This information will help you understand the machine better and will prepare you for the types of adjustments that can be made in the event of any troubleshooting.

Oscillation Timing


When adjusting the oscillation action of the sander, the first thing you should do is adjust the balance of the sanding belt side-to-side movement. When the timing is right, the belt will take the same amount of time to move in one direction, as it moved in the other direction. **Time the oscillation as follows:**

1. With the sanding belt installed and properly tensioned, open both access doors on the upper part of the sander, then turn the sanding belt **ON** and determine the oscillation timing status.

CAUTION

Keep your hands clear of the sanding belt when making these adjustments!

- If the oscillation timing is correct the sanding belt will move back and forth evenly, and no further adjustments to the timing will be needed.
 - If the oscillation is incorrect, the belt will move faster to one side, then slower to the other—follow **step 4** to adjust; or if the belt comes off the rollers and immediately stops the sander—follow **steps 3-4** to adjust.
3. If the belt moves too far to one side and stops the sander, then re-adjust the timing control knob (shown in **Figure 15**) approxi-



WARNING

Make sure that your machine is unplugged during any adjustment procedures unless instructed to do different! If this warning is ignored, serious personal injury may occur!



WARNING

Always keep loose clothing and long hair secured and away from moving parts.



WARNING

Always wear safety glasses during operations. Serious injury may occur if this warning is ignored!

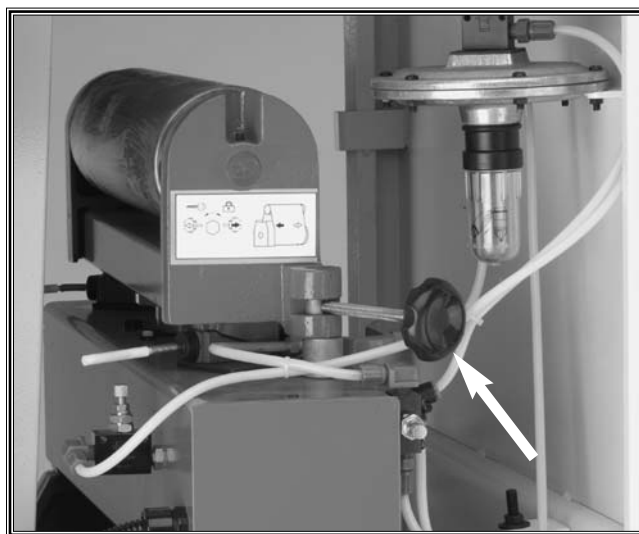


Figure 15. Oscillation timing knob.

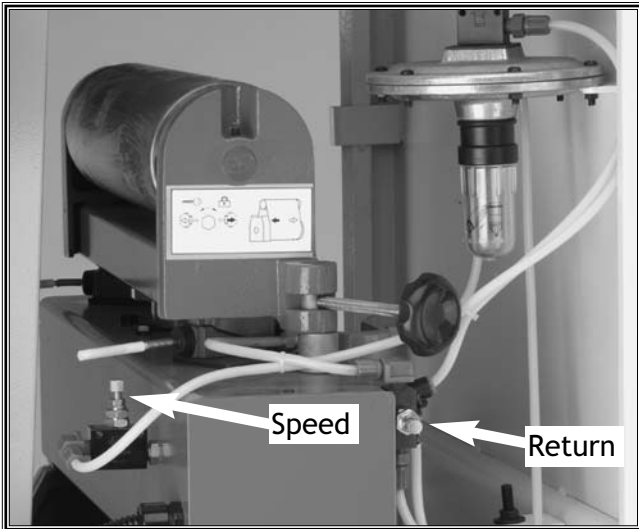


Figure 16. Oscillation speed and oscillation return control valves.



Figure 17. Air eye fork.

mately $\frac{1}{2}$ " to the left or right, loosen the belt tension, recenter the sanding belt on the rollers and tighten the belt again. Turn the sanding belt **ON** and repeat this step until the belt will not stop the sander when oscillating.

4. When the belt is oscillating without stopping, loosen the timing knob and slowly move it until the belt is moving back and forth in even intervals. Lock the timing knob to keep the oscillation consistent.

Oscillation Speed

The valve shown in **Figure 16** controls the speed of the sanding belt oscillation. For normal operations, the oscillation speed should be set so that it takes approximately 2 seconds to move each direction of travel or a total of 4 seconds to move both directions. *The oscillation timing must be balanced before adjusting the speed!*

To increase the speed, turn the valve counterclockwise.

To decrease the speed, turn the valve clockwise.

After the speed has been set, tighten the jam nut under the valve knob so it will not move. Experiment with different speeds to see how the results may affect your finished product. Often, you may find that certain speeds yield better results for different varieties of stock.

Oscillation Return

The oscillation return is responsible for keeping the belt in motion during oscillation. **Figure 16** shows the valve that controls the oscillation return. **Adjust the oscillation return as follows:**

1. **Unplug the power** but keep the air pressure going into the machine.
2. Loosen the belt tension and remove the sanding belt from the sander.
3. Obstruct the airflow between the air eye fork (shown in **Figure 17**) with your finger until the top sanding roller rotates a small amount then stops.

4. Keep the airflow blocked and loosen the jam nut under the valve knob. Turn the knob clockwise to close the valve.
5. Mover your finger away from the air eye fork to resume the airflow. Slowly turn the valve counterclockwise and watch the top roller for movement.
6. When the top roller starts moving, continue turning the valve another $\frac{1}{2}$ turn. Tighten the jam nut to keep the new setting in place. Avoid opening the knob more than necessary because this will place excessive pressure on the air system components.

Limit Switches

Limit switches are placed on both sides of the belt to act as emergency stops if the belt travels too far to one side during oscillation. **Adjust the limit switches as follows:**

1. Release the belt tension, center the sanding belt on the top roller, then tension the belt again.
2. Measure the distance from the edge of the sanding belt to the rubber coated portion of the limit switch. When correct, the belt and the switch should be approximately $\frac{1}{2}$ " away from each other. If your measurement is different than this, the limit switch must be adjusted.
3. The bolt shown in **Figure 18** secures the limit switch to the frame. Loosen this bolt and slide the limit switch as necessary until you achieve the proper $\frac{1}{2}$ " measurement.
4. Tighten the bolt that secures the limit switch and repeat the adjustment with the other side if necessary.
5. Plug the sander back in and turn it *ON* to ensure that it is working properly. Repeat these instructions if necessary.

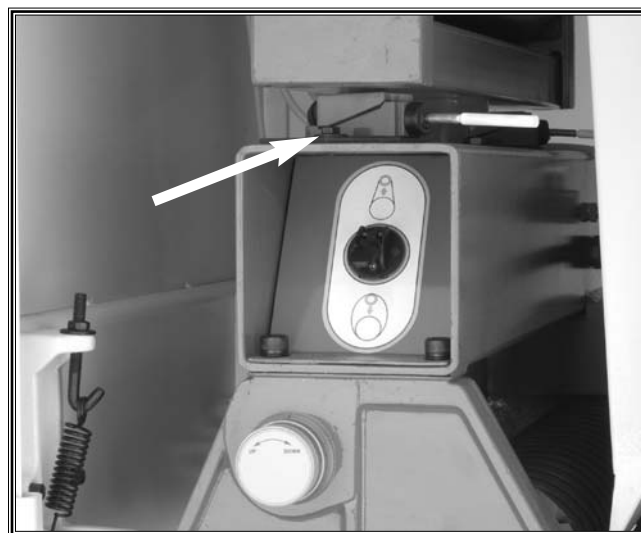
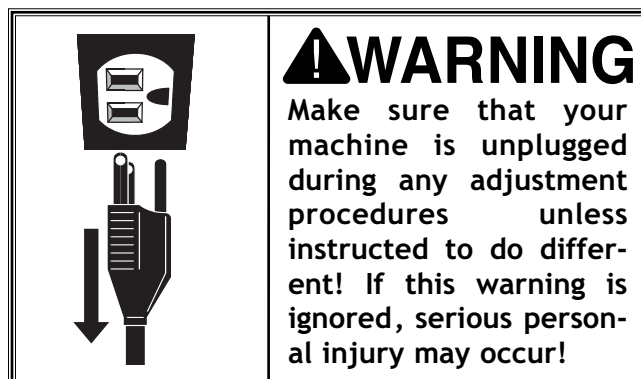


Figure 18. Limit switch adjustment bolt.

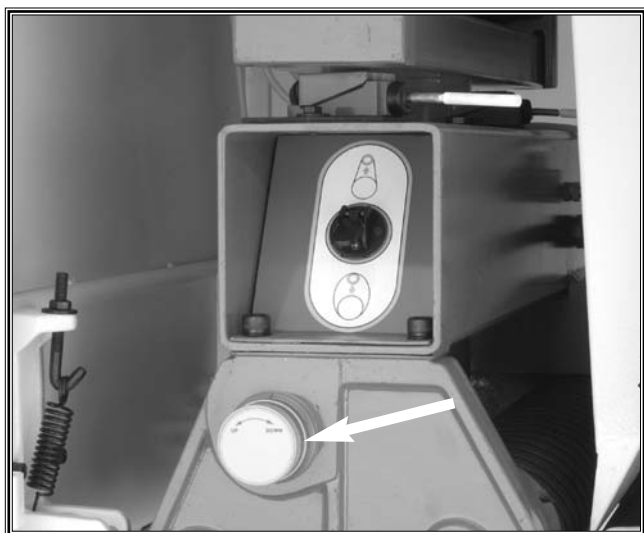


Figure 19. Platen depth knob.

Platen Depth

Occasionally you will need to “reset” the platen depth and make it even with the sanding belt rollers. Set the platen depth as follows:

1. **Unplug the sander from the power!**
2. Lower the conveyor table down as far as it will go so that you have enough room to work under the sanding belt rollers.
3. Place a straightedge across the bottom of both sanding belt rollers.
4. Using the platen adjustment knob shown in **Figure 19**, move the platen so that it barely touches the straightedge, and thus, is even with both sanding belt rollers.



Figure 20. Boards placed under pressure rollers as a gauge.

Pressure Rollers

The pressure rollers can be adjusted in two ways—the depth and the tension. For proper depth, the front pressure roller should be approximately .040" below the level of the sanding rollers and the rear pressure should be approximate .020" below the level of the sanding rollers. **Adjust the pressure roller depth as follows:**

1. **Unplug the sander**, but keep air pressure coming in and have the sanding belt installed and tensioned for the following steps.
2. Make two adjustment boards that are 24" long and are of a uniform thickness.
3. Place each board on each side of the conveyor belt so that they are positioned directly below the front and back pressure rollers as shown in **Figure 20**.

4. Raise the pressure rollers above the sanding belt rollers with the adjustment bolts shown in **Figure 21**. *The pressure roller adjustment bolts can be locked/unlocked with the recessed setscrews in the head of the bolt. For the rear pressure rollers, these bolts are located in the same position on the back side of the machine.*
5. Make sure that the platen is even with the sanding belt rollers.
6. Raise the table up until the boards barely touch the sanding belt. This is an important reference point. *Notice the table hand-wheel position and make a mental note of its location for the next adjustment.*
7. Turn the table handwheel counterclockwise $\frac{1}{8}$ th of a turn. This will lower the table approximately $\frac{1}{64}$ ". Now lower the rear pressure roller so that both ends barely touch the boards.
8. Turn the table handwheel counterclockwise another $\frac{1}{8}$ th of a turn. Now lower the front pressure roller so that both ends just touch the boards.

The pressure rollers should now be properly set. Keep in mind that roller tension, besides roller depth, will also affect the feeding operations.



Figure 21. Pressure roller adjustment bolts.

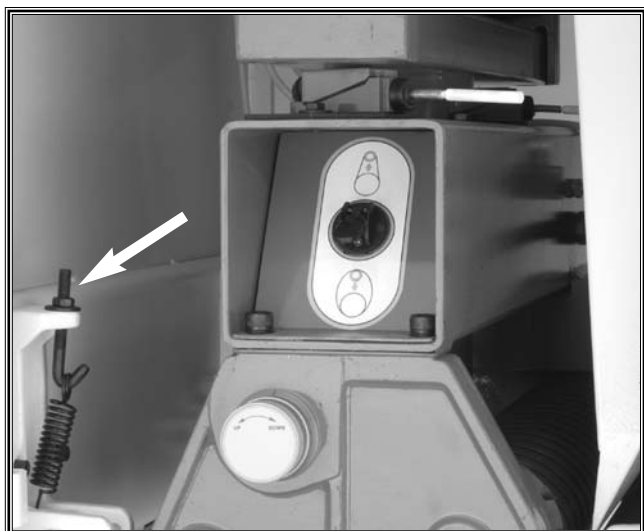


Figure 22. Pressure roller adjustment spring.

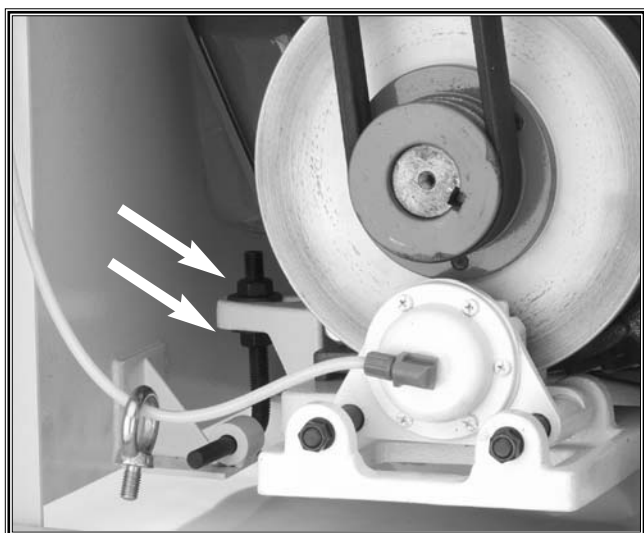


Figure 23. Motor mount adjustment nuts.

Pressure Roller Tension

Pressure roller tension is the downward force that the pressure rollers place on the workpiece as it passes through the sander. Too little tension will cause the workpiece to pass unevenly through the sander and may launch the workpiece from the sander. Too much tension may cause poor and inconsistent sanding results, as well as premature wear on the conveyor belt. **Adjust the pressure roller tension as follows:**

1. **Unplug the sander from the power!**
2. Verify that the pressure roller depth is set correctly.
3. Open both access doors on the upper part of the sander and locate the tension springs shown in **Figure 22**.
4. The position of the nut on the adjustment bolt controls the spring tension. Turn the nut clockwise to increase the tension and counterclockwise to decrease the tension.

V-Belt Tension

The V-belts that drive the sanding rollers must be tensioned properly for best performance. **Tension the V-belts as follows:**

1. **Unplug the sander from the power!**
2. Remove the cover on the right-hand side of the lower portion of the sander.
3. The two nuts shown in **Figure 23** are responsible for adjusting the V-belt tension. Turn both nuts clockwise to tighten the V-belts, or turn both nuts counterclockwise to loosen the V-belts.
4. The V-belt is properly tightened when it will move no more than $\frac{3}{4}$ " in the center with moderate pressure from your thumb.

Feed Belt Tension

The feed belt tension has been set at the factory and should not need to be adjusted when the machine is new; however, if at any point you notice that your feed belt is slipping on the rollers, it should be tensioned. **Tension the feed belt as follows:**

1. **Unplug the sander from the power source!**
2. Position the emergency brake plate up as far as it will go, so that it is out of the way of the tension screws (one is shown in **Figure 24**). The back feed roller is not adjustable, and therefore, no adjustment screws are located at the back of the sander.
3. Turn the adjustment bolt clockwise to increase the tension and turn it counter-clockwise to decrease the tension. Adjust each side evenly so that the tracking does not become misaligned.
4. When the tension is correct, run the belt for at least three minutes to check the tracking before resuming sanding operations.

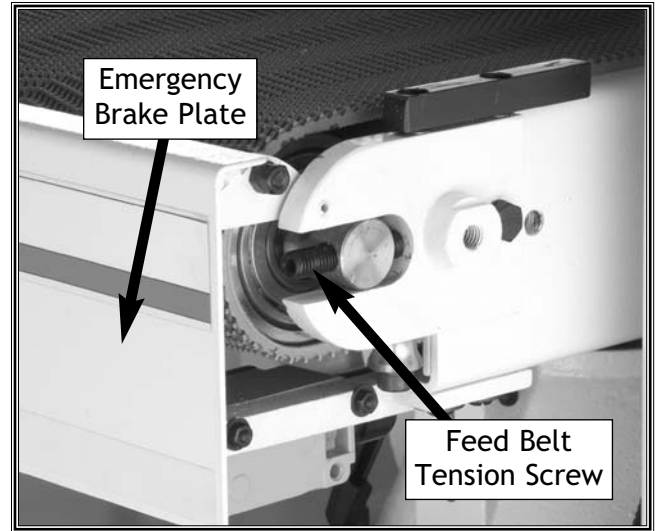


Figure 24. Feed belt tension screw.

Feed Belt Tracking

If you notice that the feed belt is tracking more to one side, turn the feed belt *OFF* immediately and adjust the tracking. The belt tracking is adjusted by using the same adjustment screws that were used during feed belt tensioning. **Tension the feed belt tracking as follows:**


1. Use the adjustment screws to position the feed belt roller evenly on each side. Measure the roller shaft location in the mounting brackets with a caliper or fine ruler to get each side even.
2. Run the feed belt for at least three minutes to determine if the tracking is correct. If the belt does not track evenly, make small adjustments to the side opposite of the belt travel and repeat this step until it tracks evenly.

OPERATIONS



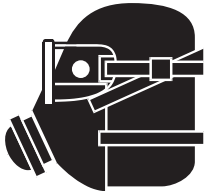
!WARNING

Always wear safety glasses during operations. Serious injury may occur if this warning is ignored!



!WARNING

Always keep loose clothing and long hair secured and away from moving parts.



!CAUTION

Always wear a dust mask in addition to using a dust collector. This machine produces sawdust that may cause allergic reactions or respiratory problems.

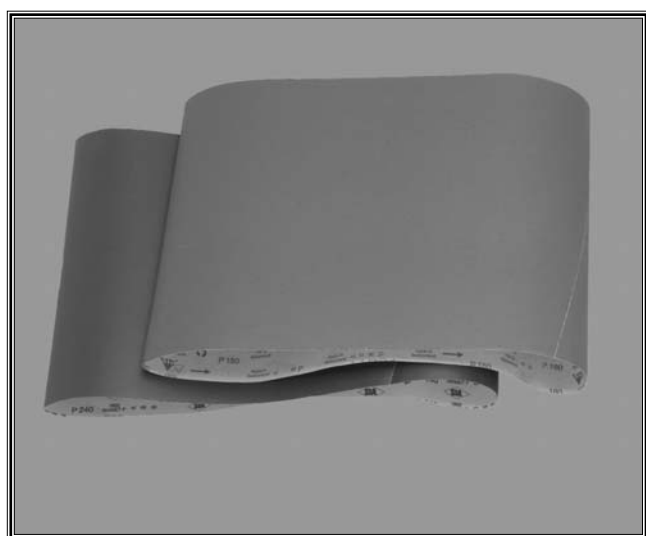


Figure 25. Sanding belts.

Test Run

Once assembly is complete, the machine is ready for a test run. The purpose of a test run is to identify any unusual noises and vibrations, as well as to confirm that the machine is performing as intended. **Perform the test run as follows:**

1. Turn both the sanding and feeding belts *ON*.
2. Once the machine is running, listen for any unusual noises. *A slow, rhythmic air sound is normal.* The machine should run smoothly with little or no vibrations.
3. If there are any unusual noises or vibrations, shut the machine off immediately.
4. Unplug the machine and investigate the source of the noise or vibration. **DO NOT** make any adjustments to the machine while it is plugged in. The machine should not be run any further until the problems are corrected.

Selecting Sandpaper

When selecting sandpaper, keep in mind that the Model W1689 accepts only 16"W x 48"L belts similar to those shown in **Figure 25**.

When deciding which grit of sandpaper to use, consider the type of work, the species of wood and the stage of finishing. Use these numbers as a general guide to sandpaper type:

- 60 Grit.....Coarse
- 80-100 GritMedium
- 120-150 GritFine

Experiment with each type of sandpaper on scrap stock that is the same species as your workpiece.

For best results, do not increase grit numbers more than 50 on any successive pass.

Conveyor Table Height Adjustments

The conveyor table height adjusts by turning the handwheel shown in **Figure 26**.

Also shown is the table height scale that measures the movement of the table. This scale is marked in both inches and millimeters. The table height scale can be used as a quick guide to matching workpiece thickness with table height.

The conveyor table lock knob shown in **Figure 27** allows you to lock the table height after adjustments have been made.

Feed Speed

The feed belt motor offers speeds of 13 and 16 FPM. **Figure 28** points out which sprockets are responsible for which speeds. **Change the feed belt speeds as follows:**

1. **Unplug the power from the sander!**
2. Remove the feed belt motor cover by taking out the cap screw that secures it.
3. Loosen the four bolts at the motor mount and slide the motor up. Pull the chain off of the sprocket that it is currently on.
4. Place the chain on the next sprocket and slide the motor down to tighten the chain. Hold the motor down and tighten the motor mount bolts at the same time.
5. **Replace the motor cover before plugging sander into power!**

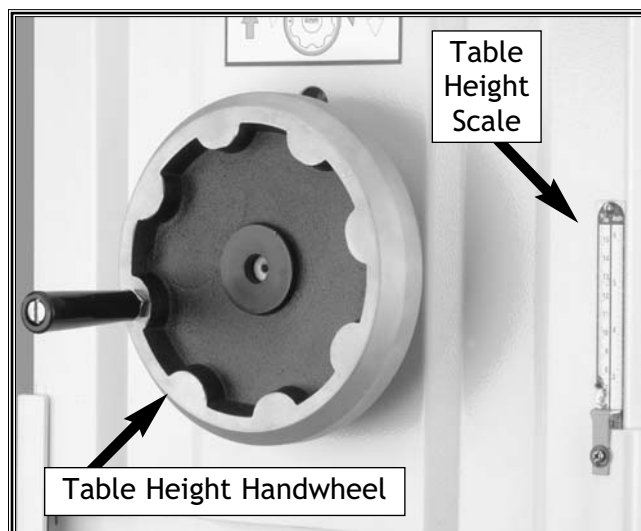


Figure 26. Table height handwheel and scale.

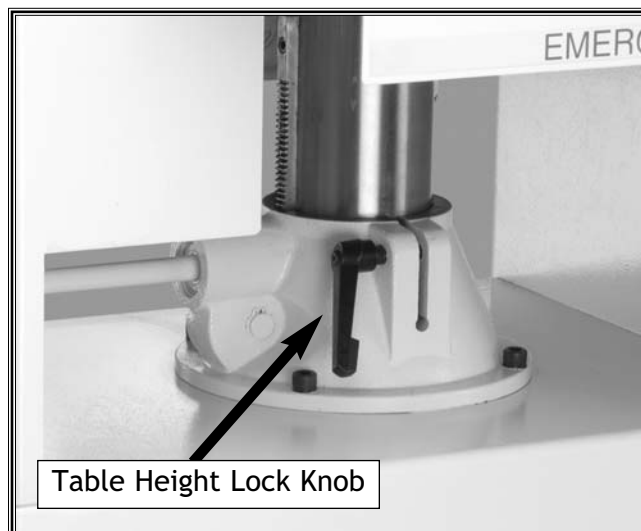


Figure 27. Handwheel movement diagram.

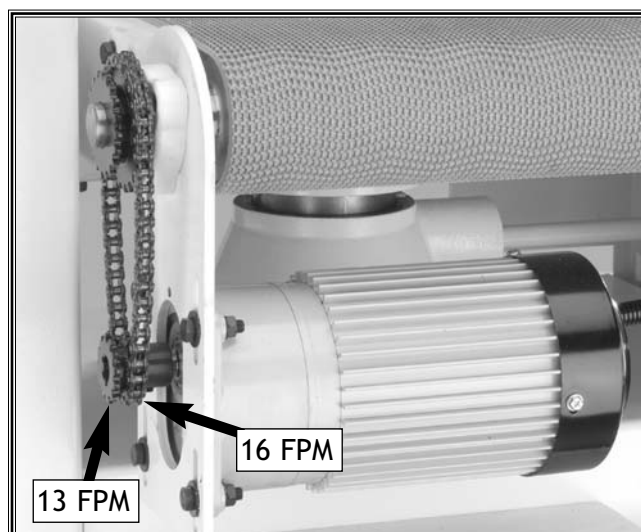


Figure 28. Feed motor chain and sprockets.



Figure 29. Load meter.



Figure 30. Emergency stop plate.

Quick Tip

For best results, feed each piece through the sander two or three times without adjusting the depth of cut. Turn the workpiece 180° and feed it through two or three more times at this same depth. As always, use your best judgement. If you no longer hear the sanding belt making contact with the workpiece on successive cuts, then no further passes are needed at that depth.

Using Load Meter

The load meter shown in Figure 29 is an important gauge for determining how deep of a cut the sander can take while you are feeding the workpiece. The load meter displays the current amperage draw of the sander. As the depth of cut increases, so does the amperage draw. Use this meter for consistent sanding depths and to avoid overloading your sander.

Never exceed 26 amps on the load meter! This is the maximum amount that the sander can safely handle.

Emergency Stop

The emergency stop shown in Figure 30 is provided to stop the sander quickly. **The emergency stop is engaged as follows:**

1. Push the bottom of the emergency stop plate as far as it will go.
2. Hold the emergency stop plate until the sander has come to a complete stop.

Operating Sander

The normal depth of cut is no more than $\frac{1}{64}$ ". This depth is the equivalent of turning the table height handwheel $\frac{1}{8}$ th of a turn. **DO NOT raise the table more than $\frac{1}{8}$ th of a turn on one successive pass.** Attempting to remove too much material can cause workpiece burning, premature paper wear, paper tearing and undesirable finished results. **Basic sanding operations are performed as follows:**

1. Put on safety glasses and a dust mask, and start the dust collector.
2. Make the thickness adjustment slightly larger than your workpiece.

3. Feed the workpiece as shown in **Figure 31**.
4. Adjust the table height while watching the load meter— **remember not to exceed 26 amps!**
5. When you achieve a good cut, lock the table in place and pass the workpiece through the sander again.

Adjusting Platen

The adjustable platen allows you to achieve different results from your sander, depending on how it is positioned. To move the platen up or down, use the knob shown in **Figure 32** and gauge the depth/height by using the scale on the knob. **The three possible platen positions are as follows:**

Platen Up — The platen is moved above the sanding rollers. The rollers then act like a drum sander and allow for increased stock removal. In this position, the ideal belt grit is #100 or coarser. The scratch pattern in this mode will be short and deep, relative to grit size.

Platen Even — The platen is set even with the sanding rollers. The rollers act together with the platen pressure to achieve intermediate or final finishing. In this position, the ideal belt grit is between #100 and #180. The scratch pattern in this position is moderate, relative to grit size.

Platen Down — The platen is moved below the sanding rollers. With the platen down, the workpiece contact with the sandpaper is only made at the platen. This position is used for fine finishing, sanding repairs, or sanding lacquer. The ideal belt grit is #180 or finer. Generally sanding with the platen down will remove .004" or less. The scratch pattern in this position will be long and shallow, relative to grit size.



Figure 31. Operator feeding workpiece in correct position.

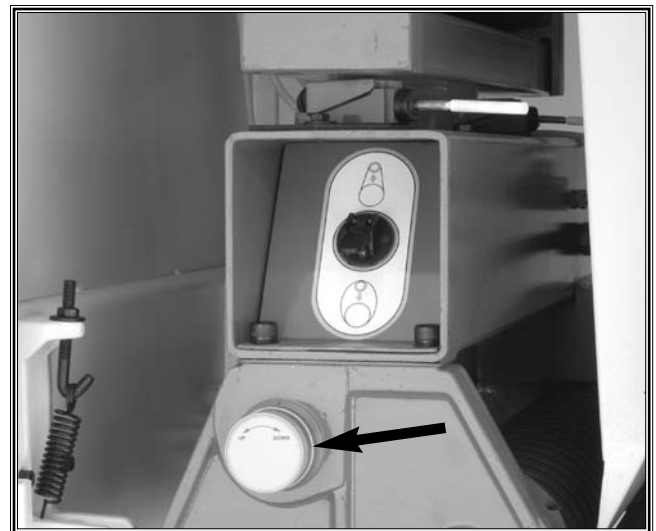


Figure 32. Platen depth knob.

NOTICE

The platen depth should never be more than .2mm below the sanding belt rollers or sanding belt damage/stretching may occur. This depth can be determined by watching the scale on the platen knob. (.2mm is the equivalent of one full turn of the knob.)

MAINTENANCE

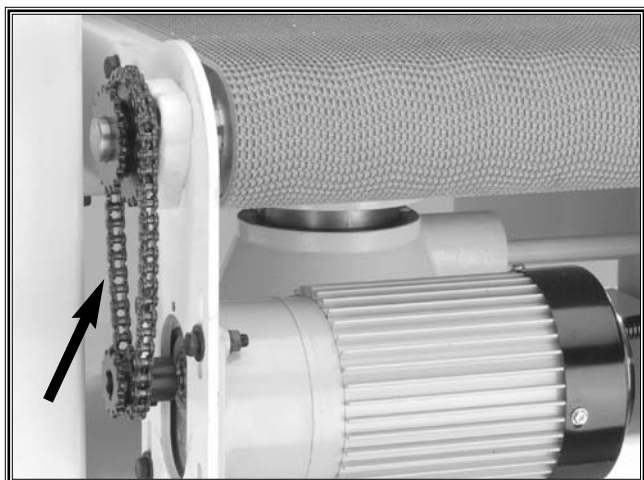


Figure 33. Clean and lubricate feed speed chain with chain lubricant monthly or as needed.

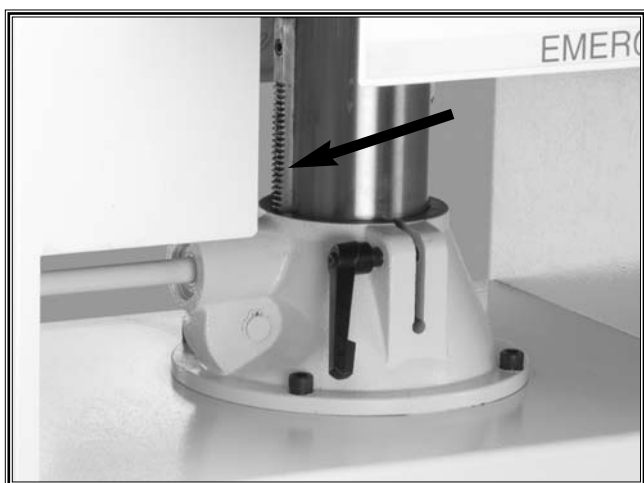


Figure 34. Lubricate table rack with a light lithium grease monthly or sooner if needed.

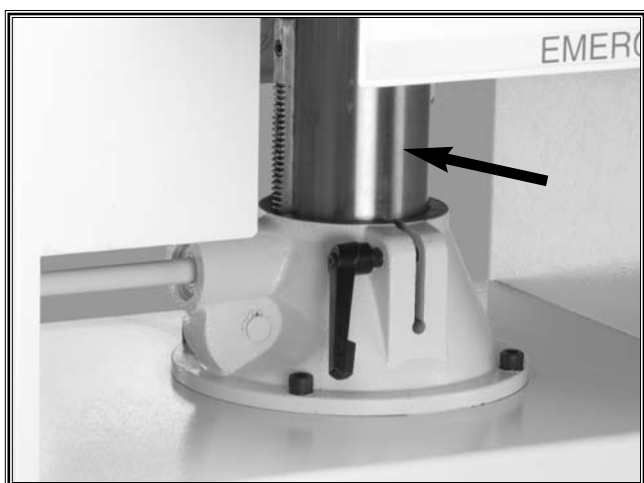



Figure 35. Lubricate table column often with mineral oil.



⚠ WARNING

Make sure that your machine is unplugged during any maintenance procedures except where instructed otherwise! If this warning is ignored, serious personal injury may occur.

General

Regular periodic maintenance on your Model W1689 will ensure its optimum performance. Make a habit of inspecting your machine each time you use it. **Check for the following conditions and repair or replace when necessary:**

- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords and plugs.
- Damaged drive belt.
- Any other condition that could hamper the safe operation of this machine.
- Check the entire air system for leaks.

Lubrication

Since all bearings are shielded and permanently lubricated, simply leave them alone until they need to be replaced. Do not lubricate them.

For other items on this machine, lubricate the items shown in **Figure 33-35**. Before applying lubricant, wipe the area clean.

Your goal is to achieve adequate lubrication. Too much lubrication will attract dirt and sawdust. These parts of your machine could lose their freedom of movement as a result.

Cleaning Belts

To increase working life of your sanding belts, we recommend that you routinely clean them with Pro-Stik® Cleaning Pads (shown in **Figure 36**).

To clean the belts, simply set your table to the thickness of the cleaning pad and run the pad through the sander two or three times. *DO NOT take too deep of a cut. The belt should just barely touch the cleaning pad!*

Clean sanding belts whenever they decrease in performance due to heavy loading.



Figure 36. Pro Stik® cleaning pad.

Servicing Filters

The filters on the two regulators need to be emptied and cleaned whenever they get more than half full. The inside filter shown in **Figure 37** will need service more frequently than the filter on the front of the machine.

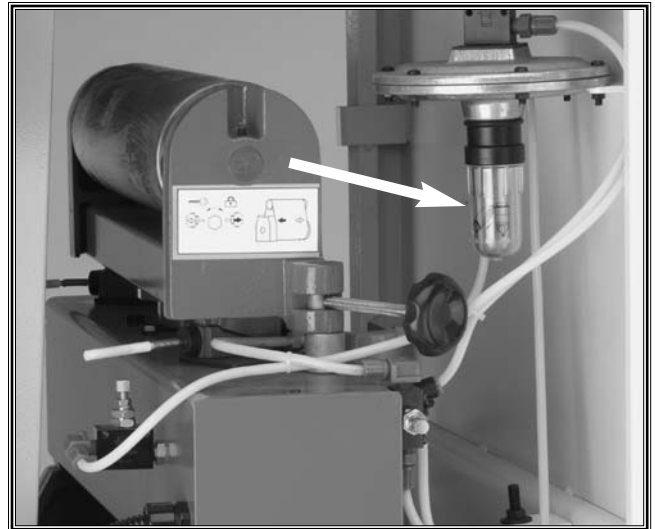


Figure 37. Check this filter often for service.

Platen Graphite

The graphite pad on the platen will eventually wear out with use. **Replace the graphite sheet as follows:**

1. Remove the platen with the platen puller tool (shown in **Figure 38**).
2. Remove the screws and the clamp bar to separate the graphite pad from the platen.
3. Install the new graphite pad, making sure that it is wrapped in the same direction as the old pad, and re-install the clamp bar and screws.

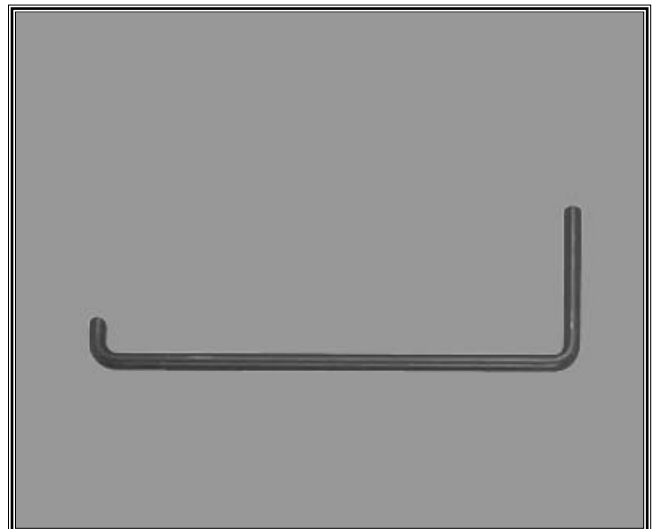


Figure 38. Platen puller tool.



Figure 39. Pull casting off of roller ends.



Figure 40. Remove large roller nut.



Figure 41. Remove front sanding roller.

Changing V-Belts

Check the V-belts periodically to check for signs of glazing, cracking or fraying. If any of these conditions are present, change both V-belts. **Change the V-belt as follows:**

1. **Unplug the sander from the power and shut off the air pressure!**
2. Loosen the top nut (turn counterclockwise) on the motor adjustment bolt. *See **page 21** for motor adjustment controls.* Turn the bottom nut counterclockwise (or pry motor up) to loosen and remove the V-belts.
4. In order to take the V-belts off of the roller pulleys, the rollers must be removed from the sander. Open both access doors on the upper part of the machine. At the left-hand access side, remove the platen knob by loosening the setscrew near its dial.
5. Remove the two setscrews that secure the dial plate to the casting and then remove the two large cap screws that secure the top of the casting.
6. Pull the casting off of the roller ends as shown in **Figure 39**.
7. At the other side of the machine (the right-hand side from the front), remove the large nut shown in **Figure 40**. *The roller may turn if not held from the other side.* This secures the other end of the front roller shaft to the sander body.
8. Now, move back to the left-hand side of the machine and carefully pull out the front sanding belt roller as shown in **Figure 41**. The V-belts can now be easily removed.
9. Install the new V-belts in the reverse order of removal. *To make this process easier, have a helper hold the V-belts up at the other side of the sander when you re-install the roller. When you retighten the large roller shaft nut, have your helper stand at the other side of the sander to keep the roller from turning.*

Servicing Brake

Any type of foreign material on the brake rotor creates the potential for improper performance. Check the brake rotor (shown in **Figure 42**) regularly to make sure it is clean. If it needs cleaning, only use automotive brake parts cleaner and a dry rag. DO NOT use water!

The brake pads (shown in **Figure 43**) will eventually need to be replaced. Check the brake pads for replacement as follows:

1. Unplug the sander from the power source and shut off the air pressure!
2. Remove the motor cover to access the brake components.
3. The brake pads are made up of a metal plate and a composite pad. Measure the thickness of each pad with a fine ruler. If either of the pads is below $\frac{1}{8}$ ", then replace both.

Replace the brake pads as follows:

1. Unplug the sander from the power source and shut off the air pressure!
2. Remove the caliper from the mounting bracket. It is held in place by hex nuts and snap rings on each mounting pin. You may need to remove the air line to the caliper to relieve any built up pressure.
3. Remove the cap screws that hold the brake pads to the caliper. *One of these can only be reached if the caliper is disassembled.*
4. Remove the brake rotor and have it professionally surfaced at an automotive or machine shop. Clean the rotor with automotive brake parts cleaner and handle it with a dry rag when installing.
5. To finish the job, install the new brake pads, reassemble and mount the caliper, and reconnect the air line.

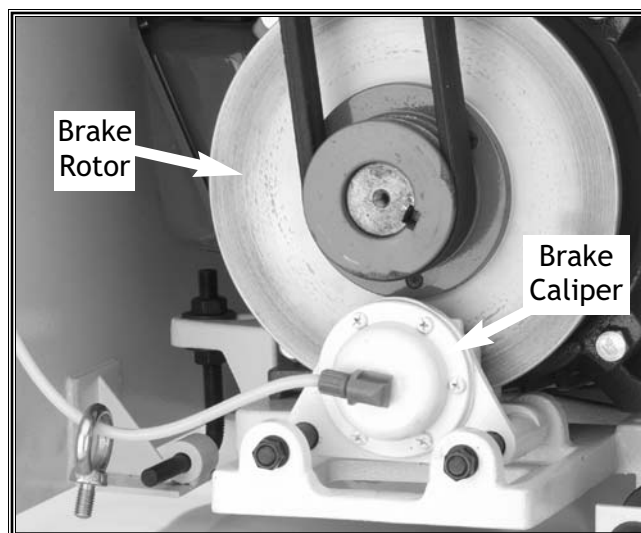


Figure 42. Brake assembly.

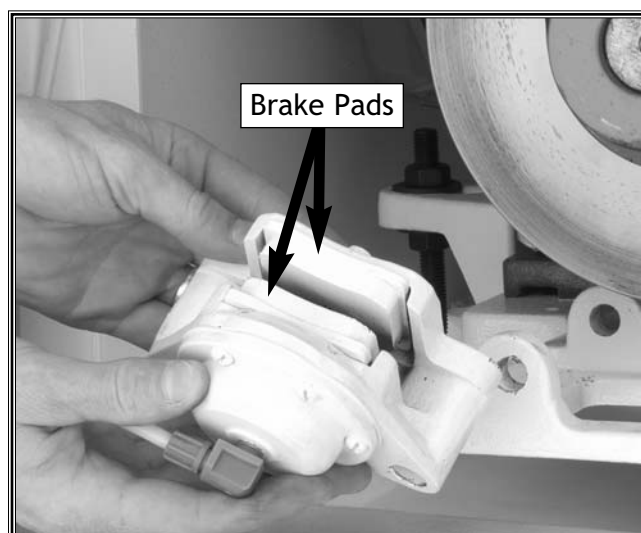


Figure 43. Brake caliper removed for access to brake pads.

Troubleshooting

SYMPTOM	POSSIBLE CAUSE	HOW TO REMEDY
Motor will not start.	<ol style="list-style-type: none"> 1. Low voltage. 2. Open circuit in motor or loose connections. 	<ol style="list-style-type: none"> 1. Check power line for proper voltage. 2. Inspect all lead connections on motor for loose or open connections.
Motor will not start; fuses or circuit breakers blow.	<ol style="list-style-type: none"> 1. Short circuit in line cord or plug. 2. Short circuit in motor or loose connections. 3. Incorrect fuses or circuit breakers in power line. 	<ol style="list-style-type: none"> 1. Inspect cord or plug for damaged insulation and shorted wires. 2. Inspect all connections on motor for loose or shorted terminals or worn insulation. 3. Install correct fuses or circuit breakers.
Motor overheats.	<ol style="list-style-type: none"> 1. Motor overloaded. 2. Air circulation through the motor restricted. 	<ol style="list-style-type: none"> 1. Reduce load on motor. 2. Clean out motor to provide normal air circulation.
Motor stalls (resulting in blown fuses or tripped circuit).	<ol style="list-style-type: none"> 1. Short circuit in motor or loose connections. 2. Low voltage. 3. Incorrect fuses or circuit breakers in power line. 4. Motor overloaded. 	<ol style="list-style-type: none"> 1. Inspect connections on motor for loose or shorted terminals or worn insulation. 2. Correct the low voltage conditions. 3. Install correct fuses or circuit breakers. 4. Reduce load on motor.
Machine slows when operating.	<ol style="list-style-type: none"> 1. Feed rate too high. 2. Depth of cut too great. 	<ol style="list-style-type: none"> 1. Feed workpiece slower. 2. Reduce depth of cut.
Loud, repetitious noise coming from machine	<ol style="list-style-type: none"> 1. Pulley set screws or keys are missing or loose. 2. Motor fan is hitting the cover. 3. V-belt is defective. 	<ol style="list-style-type: none"> 1. Inspect keys and set screws. Replace or tighten if necessary. 2. Tighten fan or shim cover. 3. Replace V-belt. See Maintenance section.
Machine is loud, overheats or bogs down in the cut.	<ol style="list-style-type: none"> 1. Excessive depth of cut. 2. Dull sanding belt. 	<ol style="list-style-type: none"> 1. Decrease depth of cut. 2. Replace sanding belt.
Edges of wood are rounded.	<ol style="list-style-type: none"> 1. Excessive depth of cut. 	<ol style="list-style-type: none"> 1. Reduce depth of cut.
Uneven thickness from left to right of board.	<ol style="list-style-type: none"> 1. Feed table not parallel to sanding roller. 2. Feed belt is worn. 	<ol style="list-style-type: none"> 1. Adjust the table. 2. Replace feed belt.
Workpiece slips on feed belt.	<ol style="list-style-type: none"> 1. Pressure rollers set too high. 2. Dirty feed belt. 3. Feed belt is worn. 	<ol style="list-style-type: none"> 1. Lower pressure rollers. 2. Clean feed belt. 3. Replace feed belt.
Straight strip of notches on workpiece.	<ol style="list-style-type: none"> 1. Pressure rollers are dirty or damaged. 	<ol style="list-style-type: none"> 1. Clean or repair pressure rollers.
Snake shaped marks on workpiece.	<ol style="list-style-type: none"> 1. Sanding belt damaged or dirty. 	<ol style="list-style-type: none"> 1. Clean or replace sanding belt.

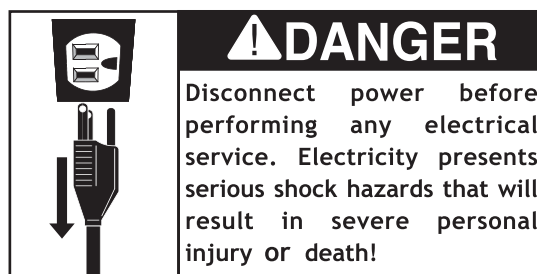
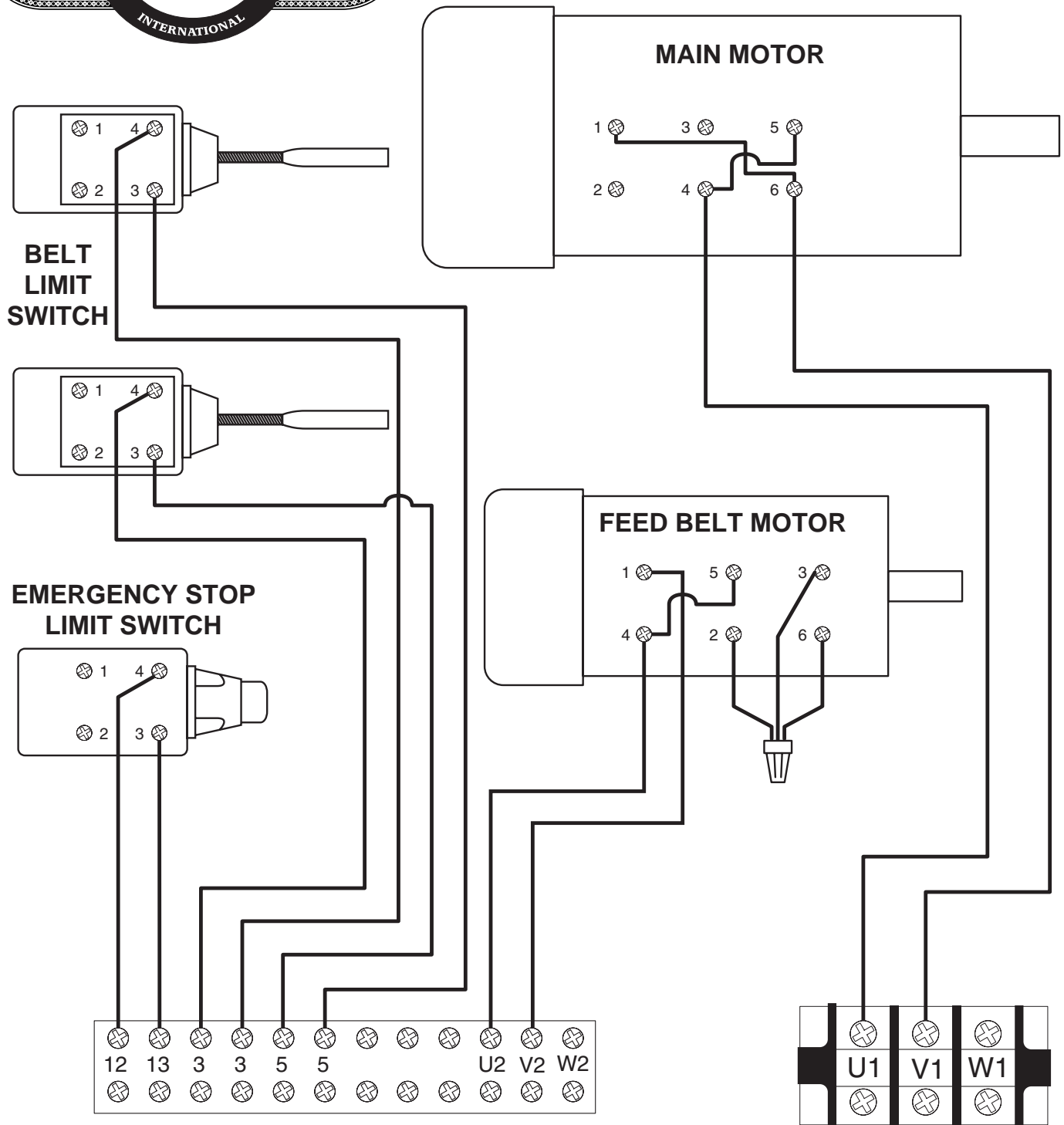
Troubleshooting

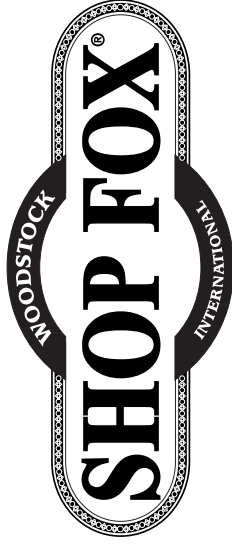
SYMPTOM	POSSIBLE CAUSE	HOW TO REMEDY
Lines across width of work-piece.	1. Sanding belt seam is open or damaged.	1. Repair or replace sanding belt.
Glossy spots or streaks on workpiece.	1. Worn sanding belt. 2. Rear pressure roller too low.	1. Replace sanding belt. 2. Raise rear pressure roller. (See warning in Pressure Roller section!)
Sanding belt clogs quickly.	1. Sanding belt grit too small for particular job. 2. Excessive depth of cut. 3. Wood is too moist.	1. Replace with a coarser grit sanding belt. 2. Reduce depth of cut. 3. Allow wood to dry out.
Sanding belt does not tension correctly; rollers slip under belt.	1. Low air pressure. 2. Air leaks in system.	1. Adjust air pressure to 75 PSI at primary regulator. 2. Inspect all hoses and connections for leaking air; use water on suspected area to detect bubbles.
Sanding belt runs off to one side, stopping the sander.	1. Air eye fork clogged. 2. Oscillation return valve closed. 3. Oscillation timing incorrect.	1. Clean the intake hole on the air eye fork. 2. Open valve. 3. Adjust oscillation timing.
Sanding belt will not start.	1. Sanding belt is not tensioned. 2. Limit switches engaged. 3. Emergency stop plate engaged.	1. Tension sanding belt. 2. Center sanding belt so it is not touching the limit switches. 3. Make sure emergency stop switch is released.
Poor, non-aggressive sanding results.	1. Platen adjusted incorrectly, above bottom surface level of lower sanding rollers. 2. Sanding belt loaded with sawdust. 3. Sanding belt worn out.	1. Adjust platen on the same plane as, or lower than, bottom surface level of lower rollers. 2. Clean sanding belt to unload sawdust. 3. Replace sanding belt with a new one.
Conveyor belt not tracking in center.	1. Conveyor rollers moved out of adjustment.	1. Re-adjust conveyor rollers.
Conveyor belt slipping.	1. Conveyor rollers have incorrect tension. 2. Conveyor rollers contaminated with dirt or dust.	1. Adjust conveyor rollers to increase tension. 2. Clean conveyor rollers.
Emergency brake stops slow.	1. Air pressure incorrect. 2. Air leak in system. 3. Brake rotor contaminated with oil. 4. Brake pads worn out.	1. Adjust air pressure to 75 PSI. 2. Find and fix air leaks. 3. Clean brake rotor with automotive brake parts cleaner. 4. Replace brake pads.
Grinding noise when braking.	1. Brakes severely worn out.	1. Replace brake pads, have rotor turned (possibly replaced).



W1689 WIRING DIAGRAM

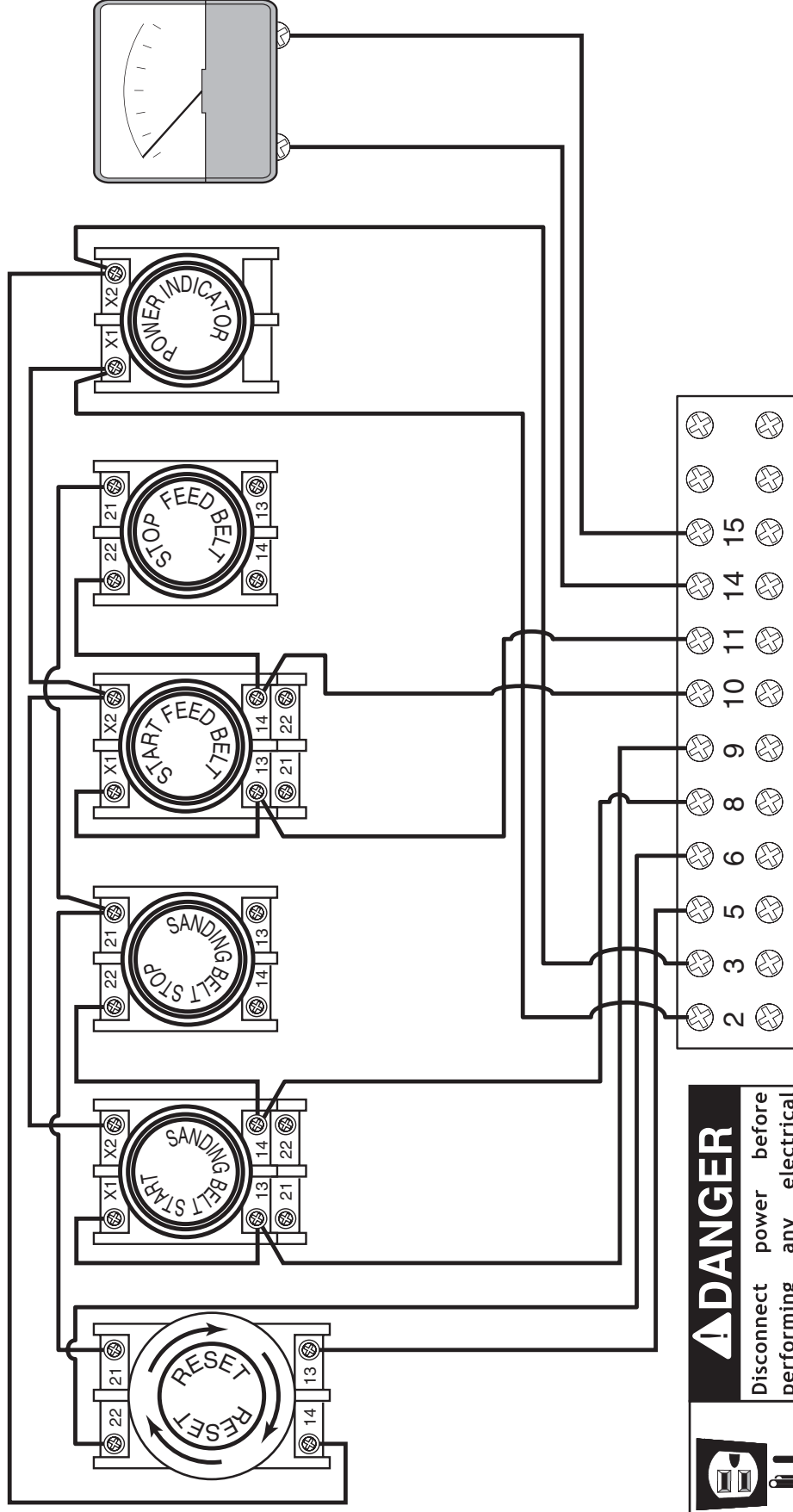
220 Volt Single Phase





W1689 WIRING DIAGRAM

220 Volt Single Phase



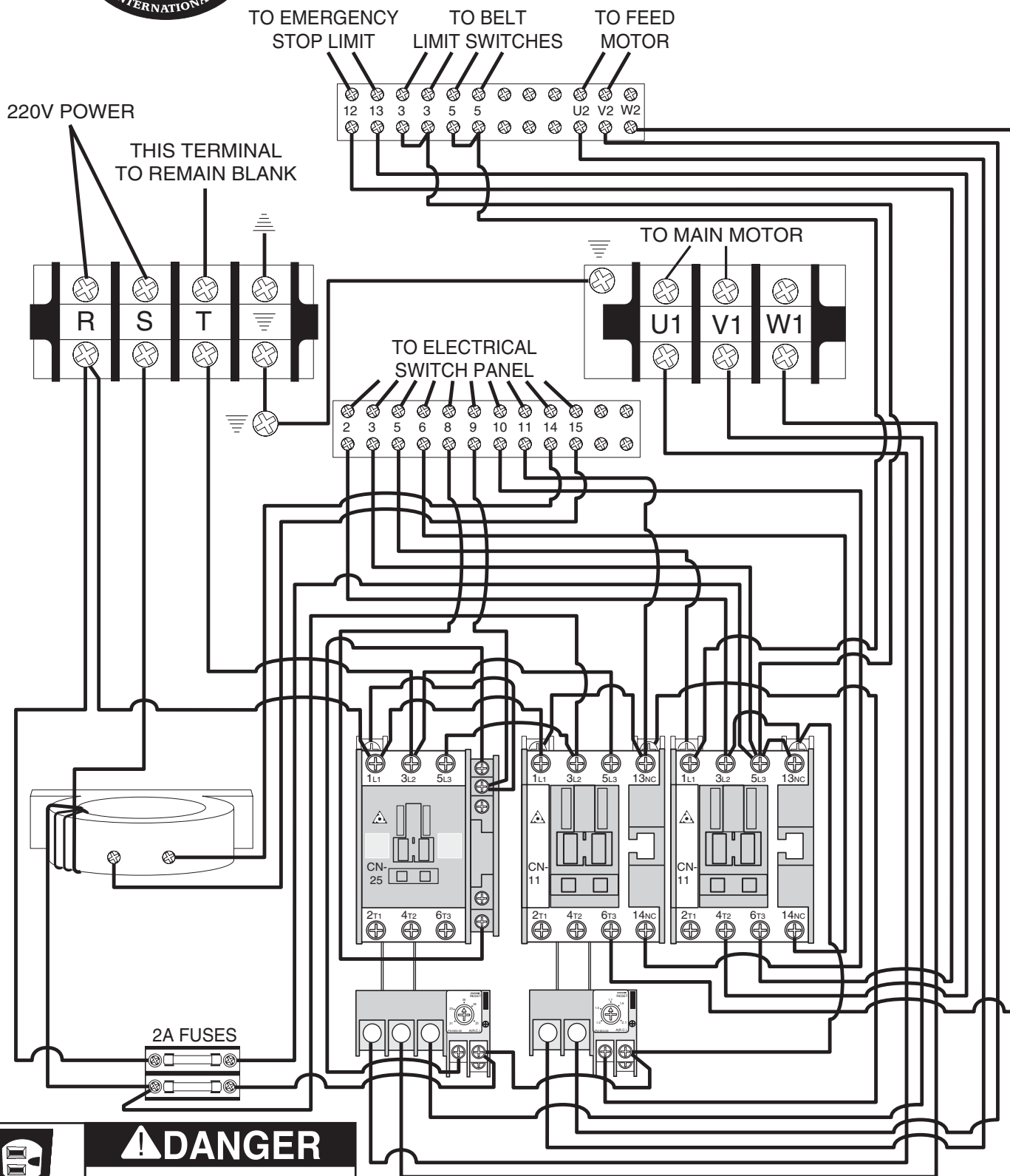
⚠ DANGER

Disconnect power before performing any electrical service. Electricity presents serious shock hazards that will result in severe personal injury or death!



W1689 WIRING DIAGRAM

220 Volt Single Phase



⚠ DANGER

Disconnect power before performing any electrical service. Electricity presents serious shock hazards that will result in severe personal injury or death!

CLOSURE

The following pages contain parts diagrams/lists and a warranty card for your SHOP FOX® Model W1689.

If you need parts or help in assembling your machine, or if you need operational information, we encourage you to call our Service Department. Our trained service technicians will be glad to help you.

If you have comments dealing specifically with this manual, please write to us using the address in the General Information. The specifications, drawings, and photographs illustrated in this manual represent the Model W1689 as supplied when the manual was prepared. However, due to Woodstock International, Inc.'s policy of continuous improvement, changes may be made at any time with no obligation on the part of Woodstock International, Inc. Whenever possible, though, we send manual updates to all owners of a particular tool or machine that have registered their purchase with our warranty card. Should you receive one, add the new information to this manual and keep it for reference.

We have included some important safety measures that are essential to this machine's operation. While most safety measures are generally universal, we remind you that each workshop is different and safety rules should be considered as they apply to your specific situation.

WARNING

As with all power tools, there is danger associated with the Model W1689. Use the tool with respect and caution to lessen the possibility of mechanical damage or operator injury. If normal safety precautions are overlooked or ignored, injury to the operator or others in the area is likely.

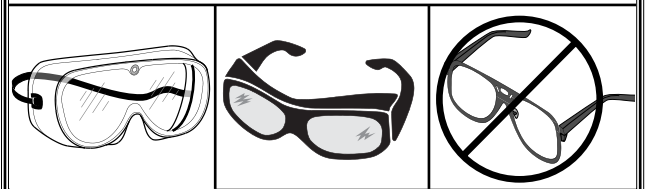
We recommend you keep this manual for complete information regarding Woodstock International, Inc.'s warranty and return policy. Should a problem arise, we recommend that you keep your proof of purchase with your manual. If you need additional technical information relating to this machine, or if you need general assistance or replacement parts, please contact the Service Department at 1-360-734-3482 or e-mail: tech-support@woodstockint.com.

Additional information sources are necessary to realize the full potential of this machine. Trade journals, woodworking magazines, and your local library are good places to start.

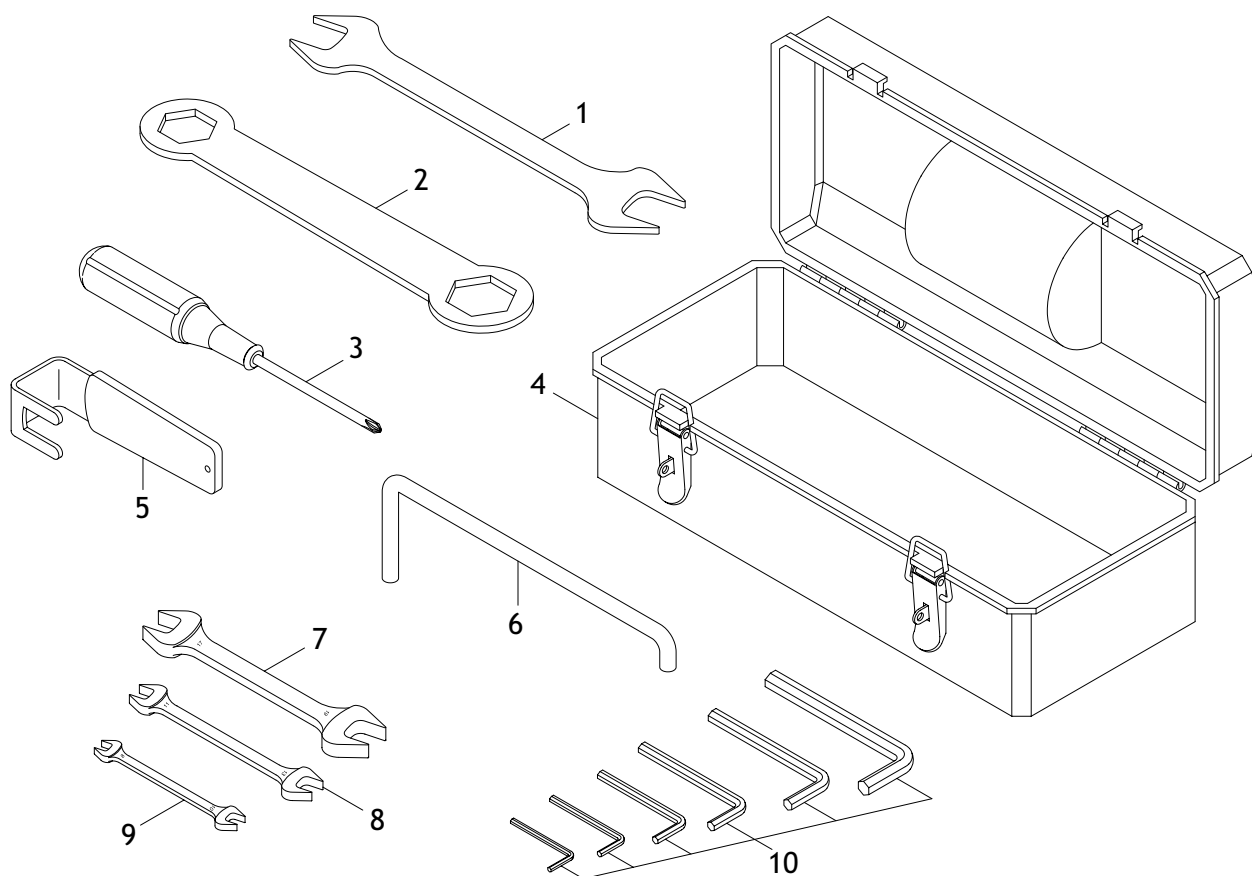
The Model W1689 is specifically designed for sanding operations. **DO NOT MODIFY AND/OR USE THIS MACHINE FOR ANY OTHER PURPOSE. MODIFICATIONS OR IMPROPER USE OF THIS TOOL WILL VOID THE WARRANTY.** If you are confused about any aspect of this machine, **DO NOT** use it until all your questions have been answered.

WARNING

Operating this equipment creates the potential for flying debris to cause eye injury. Always wear safety glasses or goggles when operating equipment. Everyday glasses or reading glasses only have impact resistant lenses, they are not safety glasses. Be certain the safety glasses you wear meet the appropriate standards of the American National Standards Institute (ANSI).

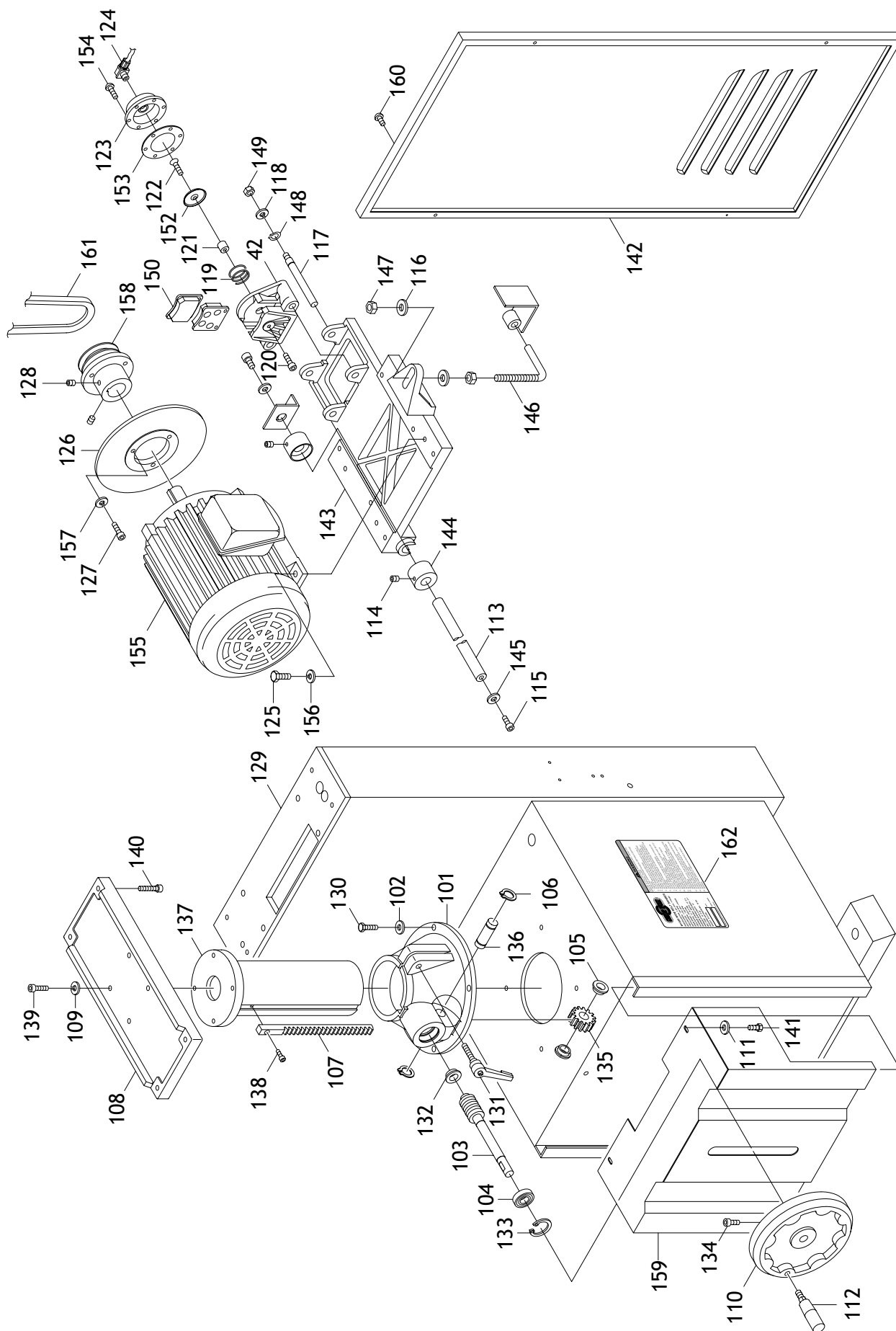


W1689 Parts & Replacement Items



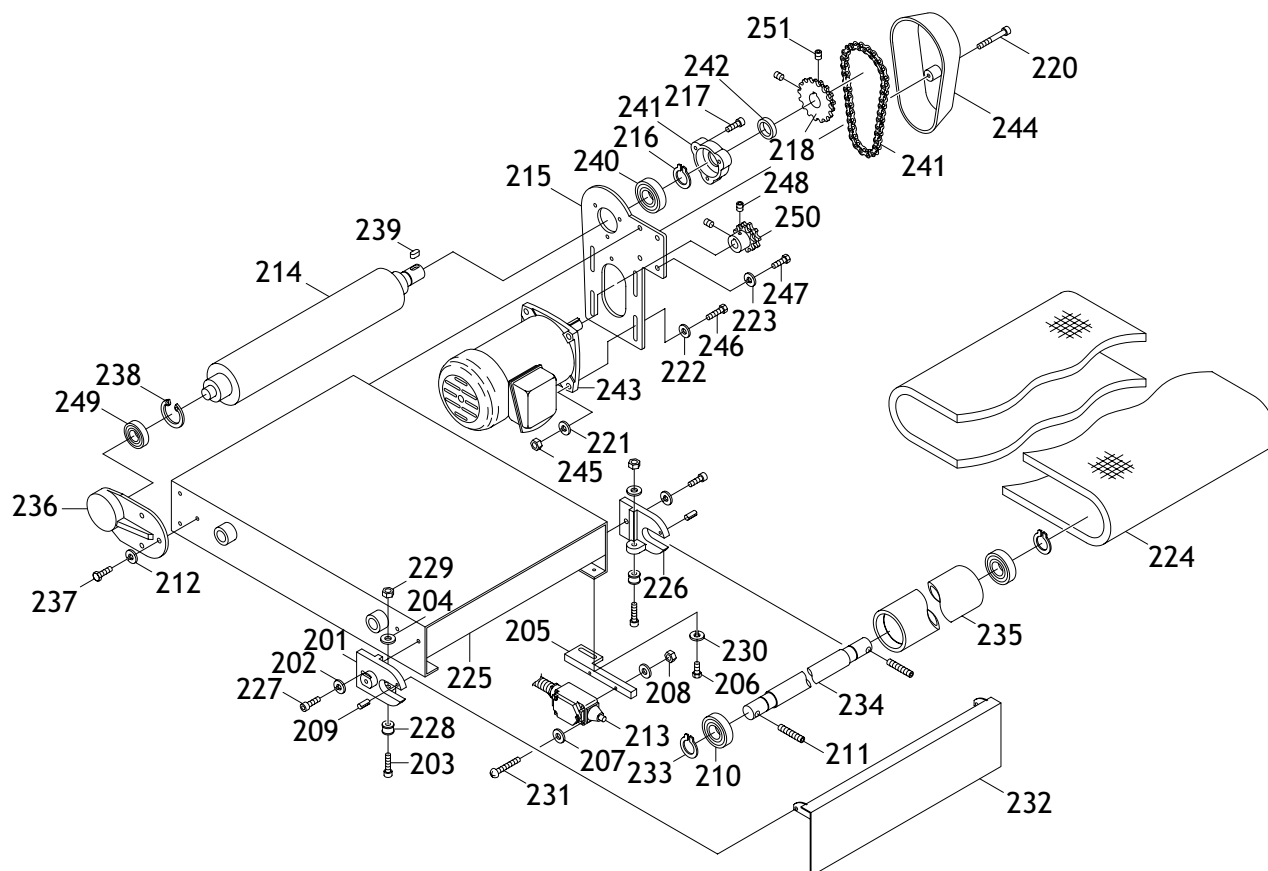
REF	PART #	DESCRIPTION
1	XPWR1214	COMBO WRENCH 12/14MM
2	X1689002	BOX WRENCH 30/37MM
3	X1689003	PHILLIPS SCREWDRIVER
4	X1689004	TOOL BOX
5	X1689005	ACCESS DOOR HANDLE

REF	PART #	DESCRIPTION
6	X1689006	PLATEN TOOL
7	XPWR1719	COMBO WRENCH 17/19MM
8	XPWR1113	COMBO WRENCH 11/13MM
9	XPWR810	COMBO WRENCH 8/10MM
10	X1689010	ALLEN WRENCH SET (10)



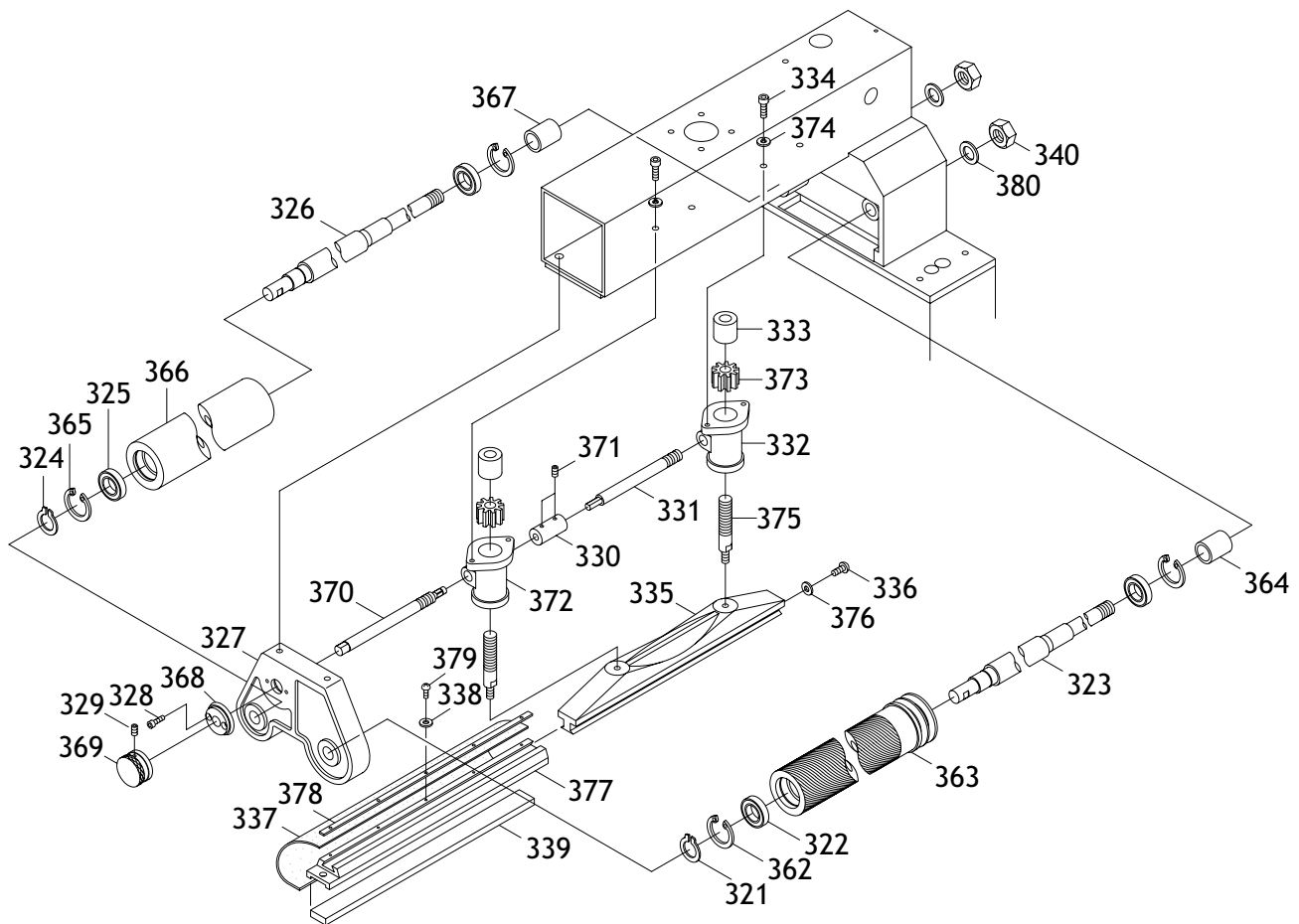
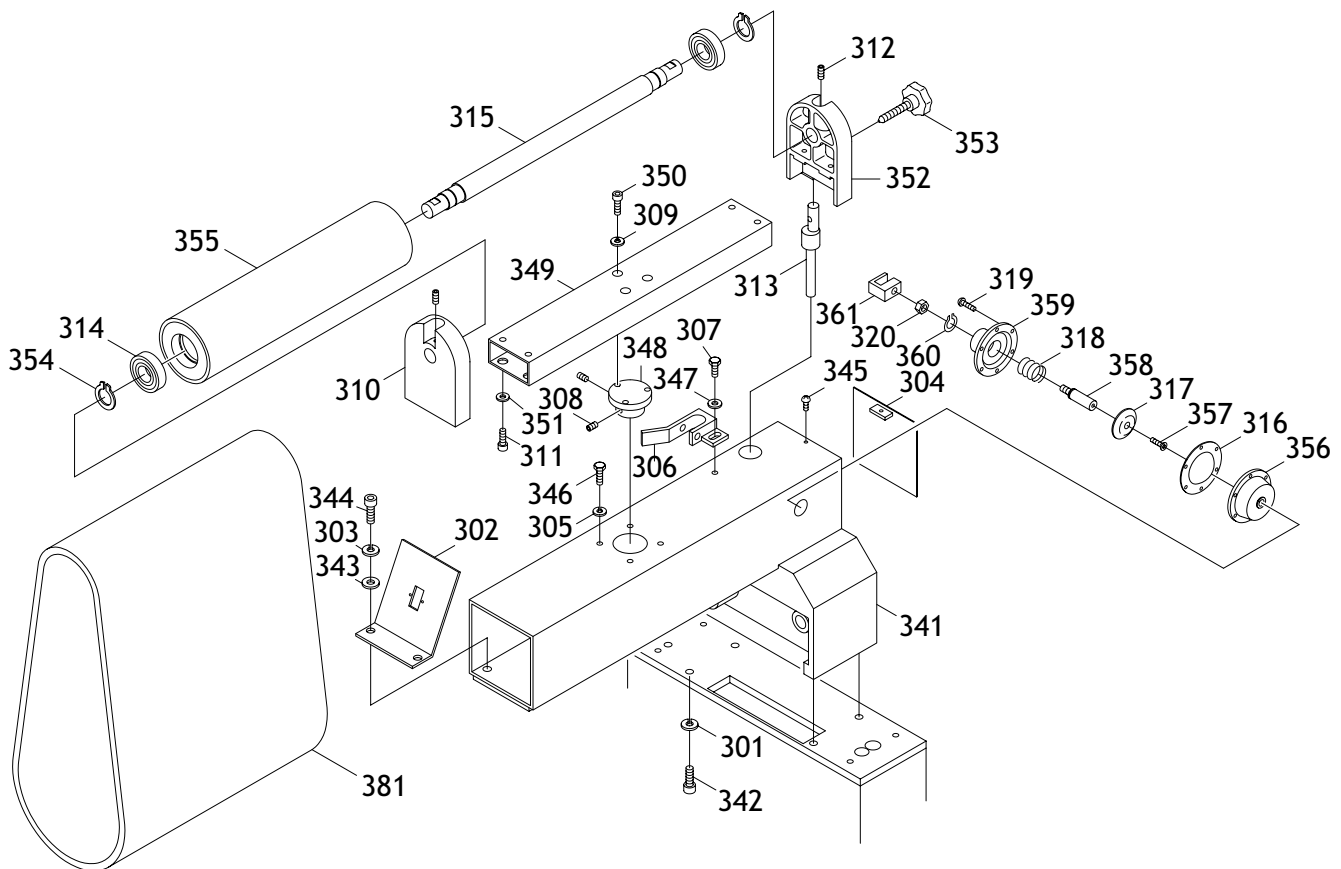
REF	PART #	DESCRIPTION
101	X1689101	QUILL BASE
102	XPLW06M	LOCK WASHER 10MM
103	X1689103	WORM GEAR SHAFT
104	XP6203ZZ	BEARING 6203-ZZ
105	X1689105	BUSHING
106	XPR18M	RETAINING RING S17
107	X1689107	RACK
108	X1689108	CONVEYOR SUPPORT FRAME
109	XPLW04M	LOCK WASHER 8MM
110	X1689110	HANDWHEEL
111	XPW03M	FLAT WASHER 6MM
112	X1689112	HANDLE M10-1.5 x 20
113	X1689113	SETTING SHAFT
114	XPSS09M	SETSCREW M8-1.25 X 20
115	XPSB62M	CAP SCREW M10-1.5 X 12
116	XPW06M	FLAT WASHER 12MM
117	X1689117	BRAKE PIN
118	XPLW06M	LOCK WASHER 10MM
119	X1689119	BRAKE CALIPER
120	XPS14M	CAP SCREW M6-1.0 X 12
121	X1689121	BRAKE
122	XPS47M	PHLP HD SCR M6-1.0 X 25
123	X1689123	TOP COVER
124	X1689124	PLASTIC CONNECTOR
125	XPB501M	HEX BOLT M10-1.5 X 30
126	X1689126	BRAKE ROTOR
127	XPSB75M	CAP SCREW M10-1.5 X 18
128	XPSS13M	SETSCREW M10-1.5 X 12
129	X1689129	MACHINE BASE
130	XPSB64M	CAP SCREW M10-1.5 X 25
131	X1689131	LOCKING HANDLE M10-1.5 x 50

REF	PART #	DESCRIPTION
132	XP51102	BEARING 51102
133	XPR34M	RETAINING RING R40
134	XPSB64M	CAP SCREW M10-1.5 X 25MM
135	X1689135	WORM GEAR
136	X1689136	GEAR SHAFT
137	X1689137	QUILL
138	XPSB74M	CAP SCREW M6-1.0 X 18
139	XPSB12M	CAP SCREW M8-1.25 X 40
140	XPSB12M	CAP SCREW M8-1.25 X 40
141	XPS24M	PHLP HD SCR M6-1.0 X 10
142	X1689142	MACHINE BASE COVER
143	X1689143	MOTOR BASE
144	X1689144	LOCK BUSHING
145	XPW04M	FLAT WASHER 10MM
146	X1689146	ADJUSTABLE SCREW
147	XPNO9M	HEX NUT M12-1.75
148	X1689148	EXT RETAINING RING 13MM
149	XPNO2M	HEX NUT M10-1.5
150	X1689150	BRAKE PAD
151	X1689151	SPRING
152	X1689152	PLATE
153	X1689153	DIAPHRAGM
154	XPS20M	PHLP HD SCR M5-.08 X 15
155	X1689155	SPINDLE MOTOR 7.5HP
156	XPLW06M	LOCK WASHER 10MM
157	XPLW06M	LOCK WASHER 10MM
158	X1689158	MOTOR PULLEY
159	X1689159	QUILL COVER
160	XPS47M	PHLP HD SCR M6-1.0 X 25
161	XPVA78	BELT A78
162	X1689162	MACHINE ID/WARNING LABEL



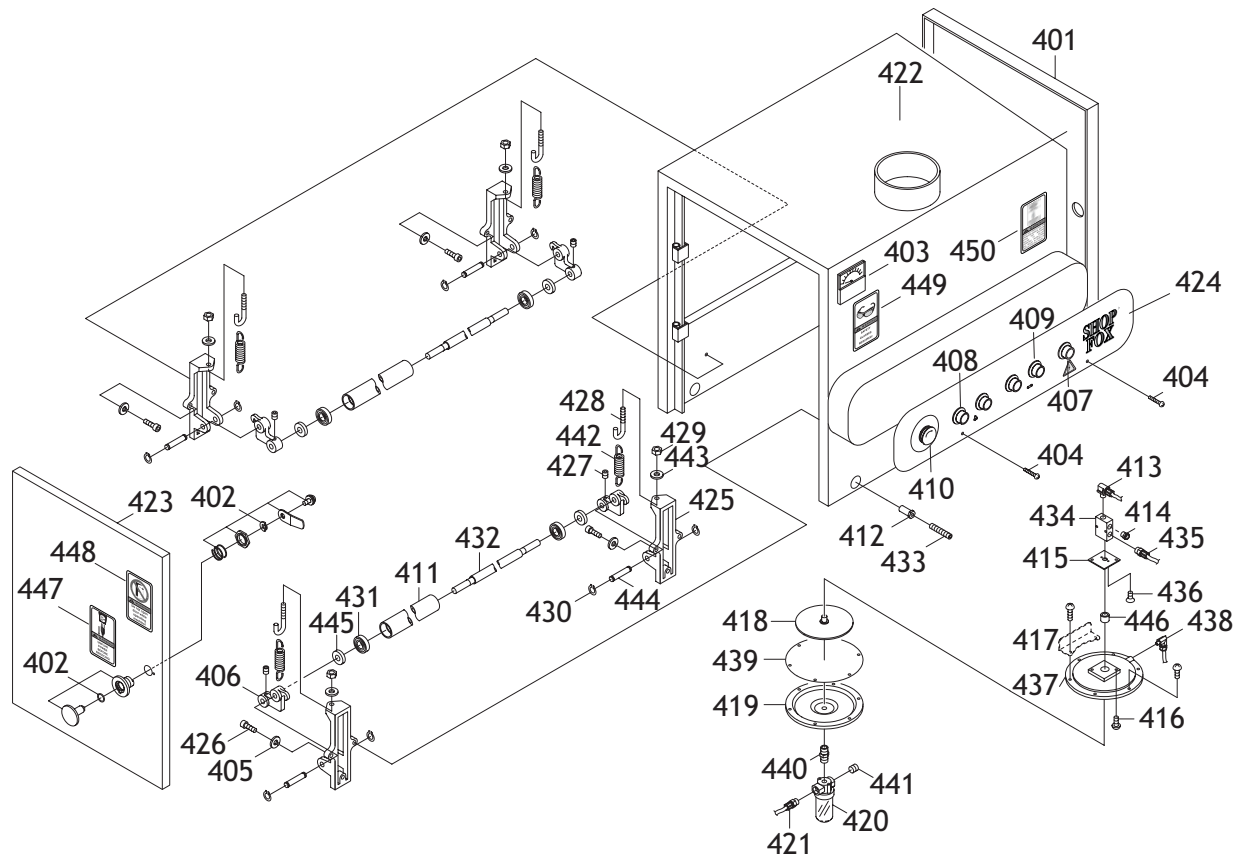
REF	PART #	DESCRIPTION
201	X1689201	ROLLER BRACKET L
202	XPLW04M	LOCK WASHER 8MM
203	XPSB40M	CAP SCREW M8-1.25 X 35
204	XPLW04M	LOCK WASHER 8MM
205	X1689205	LIMIT SWITCH BASE
206	XPS14M	PHLP HD SCR M6-1.0 X 12
207	XPW05M	FLAT WASHER 4MM
208	XPNO4M	HEX NUT M4-0.07
209	XPRP03M	PIN 5 X 20MM
210	XP6305ZZ	BEARING 6305-ZZ
211	XPSS39M	SETSCREW M10-1.5 X 50
212	XPLW04M	LOCK WASHER 8MM
213	X1689213	LIMIT SWITCH
214	X1689214	MAIN ROLLER
215	X1689215	MOTOR PANEL
216	XPR11M	RETAINING RING S25
217	XPSB74M	CAP SCREW M6-1.0 X 18MM
218	X1689218	CHAIN WHEEL 19T X 24T
219	X1689219	CHAIN 3/8" X 48PC
220	XPSB37M	CAP SCREW M6-1.0 X 50
221	XPLW04M	LOCK WASHER 8MM
222	XPW01M	FLAT WASHER 8MM
223	XPLW04M	LOCK WASHER 8MM
224	X1689224	CONVEYOR BELT 380 X 1620
225	X1689225	CONVEYOR SUPPORT FRAME
226	X1689226	ROLLER BRACKET R

REF	PART #	DESCRIPTION
227	XPB07M	HEX BOLT M8-1.25 X 25
228	X1689228	BRASS ROLLER
229	XPNO3M	HEX NUT M8-1.25
230	XPW03M	FLAT WASHER 6MM
231	XPS48M	PHLP HD SCR M4-.07 X 50
232	X1689232	E-BRAKE PANEL
233	XPR11M	RETAINING RING S25
234	X1689234	CONVEYOR AXLE
235	X1689235	CONVEYOR ROLLER
236	X1689236	BEARING SEAT
237	XPB09M	HEX BOLT M8-1.25 X 20
238	XPR25M	RETAINING RING R47
239	XP60M	KEY 8 X 8 X 15MM
240	XP6205ZZ	BEARING 6205-ZZ
241	X1689235	BEARING COVER
242	X1689237	BUSHING
243	X1689243	FEED MOTOR 1/4 HP
244	X1689244	ROLLER CHAIN COVER
245	XPNO3M	HEX NUT M8-1.25
246	XPB26M	HEX BOLT M8-1.25 X 30
247	XPB09M	HEX BOLT M8-1.25 X 20
248	XPSS02M	SETSCREW M6-1.0 X 6
249	XP6204ZZ	BEARING 6204-ZZ
250	X1689250	CHAIN WHEEL 12T, 14T
251	XPSS40M	SETSCREW M6-1.0 X 66



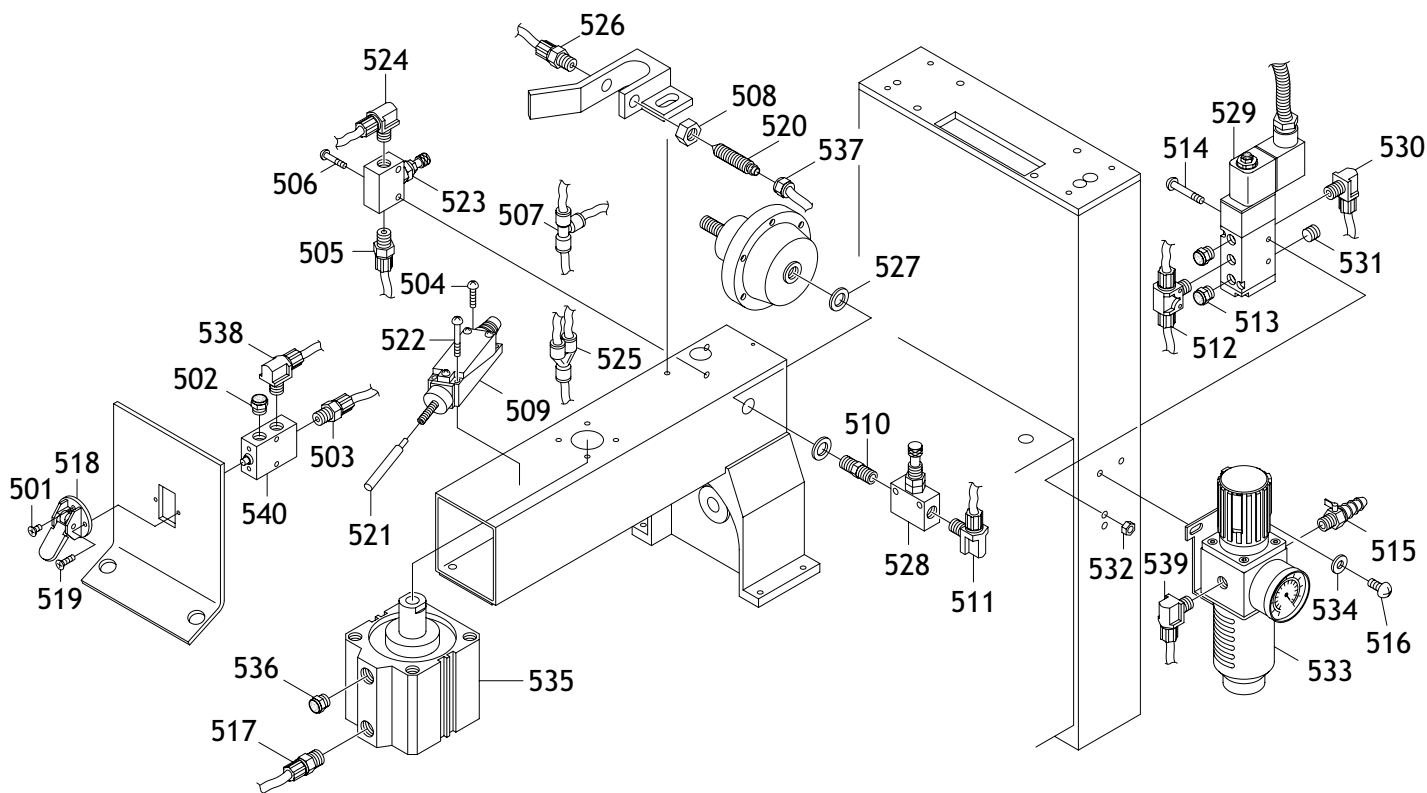
REF	PART #	DESCRIPTION
301	XPLW06M	LOCK WASHER 10MM
302	X1689302	SWITCH PLATE
303	XPLW06M	LOCK WASHER 10MM
304	X1689304	COVER
305	XPLW04M	LOCK WASHER 8MM
306	X1689306	FORK
307	XPS14M	PHLP HD SCR M6-1.0 X 12
308	XPSS02M	SETSCREW M6-1.0 X 6MM
309	XPLW04M	LOCK WASHER 8MM
310	X1689310	TOP ROLLER SUPPORT
311	XPSS41M	SETSCREW M8-1.25 X 18
312	XPSB26M	CAP M6-1.0 X 12MM
313	X1689313	ECCENTRIC SHAFT
314	XP6205ZZ	BEARING 6205-ZZ
315	X1689315	TOP ROLLER SHAFT
316	X1689316	DIAPHRAGM
317	X1689317	PLATE
318	X1689318	SPRING
319	XPS06M	PHLP HD SCR M5-.08 X 20
320	XPNO2M	HEX NUT M10-1.5
321	XPR11M	RETAINING RING S25
322	XP6005ZZ	BEARING 6005-ZZ
323	X1689323	ROLLER SHAFT
324	XPR11M	RETAINING RING S25
325	XP6005ZZ	BEARING 6005-ZZ
326	X1689326	ROLLER SHAFT
327	X1689327	ROLLER BASE
328	XPSB04M	CAPSCREW M6-1.0 X 10
329	XPSS02M	SETSCREW M6-1.0 X 6
330	X1689330	CONNECTION COUPLING
331	X1689331	SUPP WORM GEAR SHAFT
332	X1689332	GRAPHITE BASE R
333	X1689333	GEAR BUSHING
334	XPB03M	HEX BOLT M8-1.25 X 16
335	X1689335	PLATEN (FEMALE)
336	XPSB58M	CAP SCREW M8-1.25 X 12
337	X1689337	CARBON GRAPHITE
338	XPW05M	FLAT WASHER 4MM
339	X1689339	LINING 30 X 415MM
340	XPNO2M	HEX NUT M20-2.5
341	X1689341	CONTACT BASE ROLLER

REF	PART #	DESCRIPTION
342	XPSB72M	CAP SCREW M10-1.5 X 30
343	XPW04M	FLAT WASHER 10MM
344	XPSB72M	CAP SCREW M10-1.5 X 30
345	XPS02M	PHLP HD SCR M4-.07 X 12
346	XPB07M	HEX BOLT M8-1.25 X 25
347	XPW03M	FLAT WASHER 6MM
348	X1689348	CYLINDER ROLLER FRAME
349	X1689349	SUPPORT TUBE
350	XPSB76M	CAP SCREW M8-1.25 X 18MM
351	XPLW04M	LOCK WASHER 8MM
352	X1689352	TOP ECCENTRIC FRAME
353	X1689353	KNOB BOLT M8 X 55
354	XPR11M	RETAINING RING S25
355	X1689355	TOP ROLLER
356	X1689356	TOP COVER
357	XPS14M	PHLP HD SCR M6-1.0 X 12
358	X1689358	SHAFT
359	X1689359	BOTTOM COVER
360	XPR05M	EXT RETAINING RING 15MM
361	X1689361	OSCILLATION SQUARE
362	XPR25M	RETAINING RING R47
363	X1689363	CONTACT ROLLER
364	X1689364	SLEEVE
365	XPR25M	RETAINING RING R47
366	X1689366	SUPPORT ROLLER
367	X1689367	BUSHING
368	X1689368	MICROMETER BASE
369	X1689369	MICROMETER
370	X1689370	MAIN WORM GEAR SHAFT
371	XPSS01M	SETSCREW M6-1.0 X 10
372	X1689372	GRAPHITE BASE L
373	X1689373	WORM GEAR
374	XPLW04M	LOCK WASHER 8MM
375	X1689375	VERT MICROMETER SCREW
376	XPW01M	FLAT WASHER 8MM
377	X1689377	PLATEN (MALE)
378	X1689378	SET PLATE
379	XPS38M	PHLP HD SCR M4-.07 X 10
380	XPLW07M	LOCK WASHER 20MM
381	X1689381	SANDING BELT



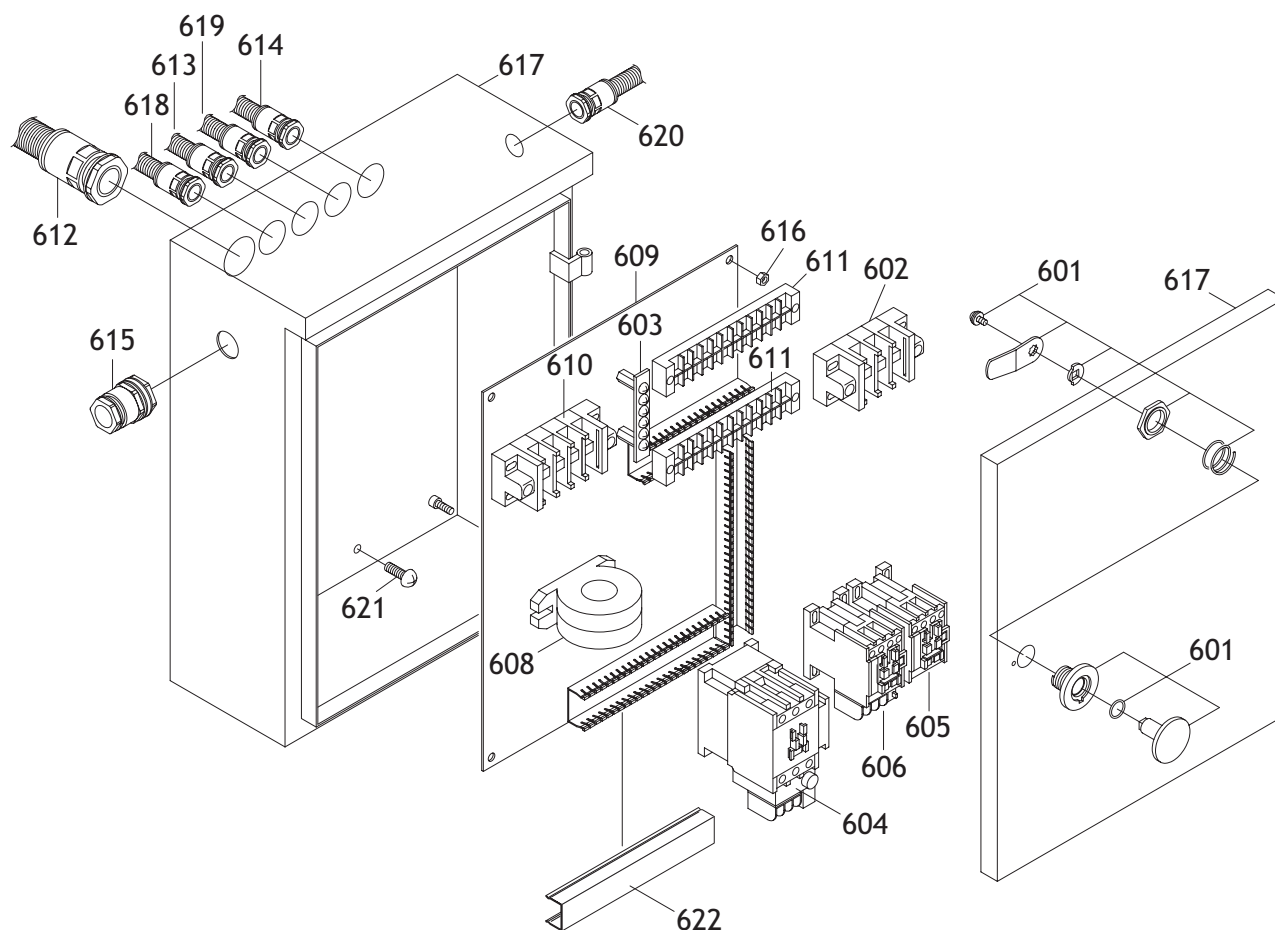
REF	PART #	DESCRIPTION
401	X1689401	ACCESS DOOR RH
402	X1689402	LOCK
403	X1689406	LOAD METER
404	XPS531M	PHLP HD SCR M6-1.0 X 35
405	XPLW03M	LOCK WASHER 6MM
406	X1689406	TILTING ARM
407	X1689407	POWER INDICATOR
408	X1689408	START BUTTON
409	X1689409	STOP BUTTON
410	X1689410	EMERGENCY STOP BUTTON
411	X1689411	PRESSURE ROLLER
412	X1689412	SPECIAL NUT M8-1.25
413	X1689413	PLASTIC CONNECTOR L6-1/8"
414	X1689414	SILENCER 1/8"
415	X1689415	LINING
416	XPS02M	PHLP HD SCR M4-.07 X 12
417	XPS06M	PHLP HD SCR M5-.08 X 20
418	X1689418	PLATE
419	X1689419	BOTTOM ALUMINUM COVER
420	X1689420	CUP 1/4"
421	X1689421	PLASTIC CONNECT C6-1/4"
422	X1689422	MACHINE FRAME
423	X1689423	ACCESS DOOR LH
424	X1689424	OPERATING PANEL
425	X1689425	PRESSURE ROLLER FRAME

REF	PART #	DESCRIPTION
426	XPSB06M	CAPSCREW M6-1.0 X 25
427	XPSS26M	SETSCREW M5-08 X 6MM
428	X1689428	SPRING HOOK
429	XPN03M	HEX NUT M8-1.25
430	XPR01M	RETAINING RING S10
431	XP6001ZZ	BEARING 6001-ZZ
432	X1689432	PRESSURE SHAFT
433	XPSS42M	SETSCREW M8-1.25 X 50
434	X1689434	SWITCHING VALVE 1/8"
435	X1689435	PLASTIC CONNECTOR C6-1/8"
436	XPS49M	PHLP HD SCR M3-.5 X 5
437	X1689437	TOP ALUMINUM COVER
438	X1689438	PLASTIC CONNECT M6 X 1/4"
439	X1689439	DIAPHRAGM
440	X1689440	PLASTIC CONNECT 1/8" X 1/8"
441	X1689441	CONNECTOR 1/4"
442	X1689442	SPRING
443	XPW01M	FLAT WASHER 8MM
444	X1689444	SET PIN
445	X1689445	BEARING COVER
446	X1689446	SPACER
447	X1689447	LABEL-UNPLUG POWER
448	X1689447	LABEL-KEEP DOOR CLOSED
449	X1689449	LABEL-SAFETY GLASSES
450	X1689450	LABEL-READ MANUAL



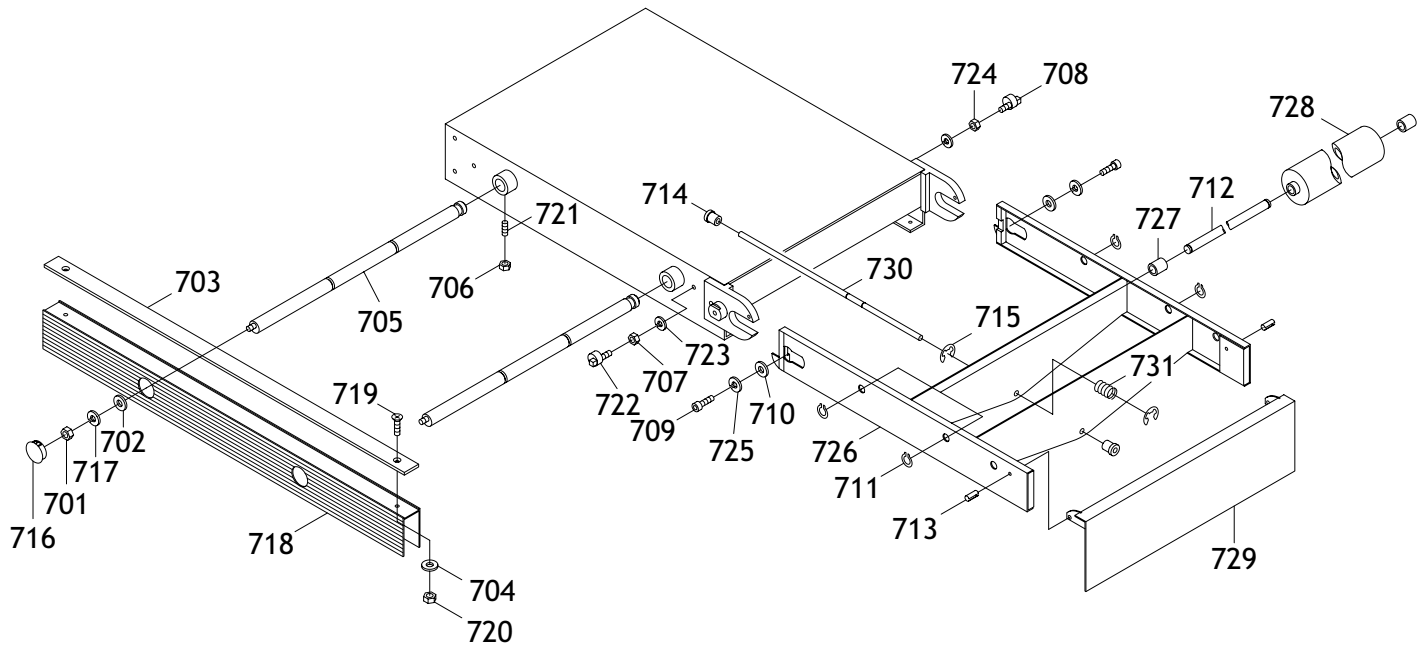
REF	PART #	DESCRIPTION
501	XPS12M	PHLP HD SCR M3-.5 X 6
502	X1689502	SILENCER 1/8"
503	X1689503	PLASTIC CONNECT C6-1/8"
504	XPS50M	PHLP HD SCR M3-.5 X 12
505	X1689505	PLASTIC CONNECT C6-1/8"
506	XPS52M	PHLP HD SCR M4-.7 X 20
507	X1689507	PLASTIC CONNECT 6T
508	XPN08	HEX NUT 3/8"-16
509	X1689509	LIMIT SWITCH 8166
510	X1689510	PLASTIC CONNECT 1/8" X 3/8"
511	X1689511	PLASTIC CONNECT L6-1/8"
512	X1689512	PLASTIC CONNECT B6-1/8"
513	X1689513	SILENCER 1/8"
514	XPS51M	PHLP HD SCR M4-.7 X 30
515	X1689515	AIR COCK 1/4" X 5/16"
516	XPS14M	PHLP HD SCR M6-1.0 X 12
517	X1689517	PLASTIC CONNECT C6-1/8"
518	X1689518	SWITCHING VALVE
519	XPS12M	PHLP HD SCR M3-.5 X 6
520	X1689520	AIR EYELET (OUT) 3/8"

REF	PART #	DESCRIPTION
521	X1689521	SENSOR PIN
522	XPS34	PHLP HD SCR M3-.5 X 25
523	X1689523	AIR VALVE 1/8"
524	X1689524	PLASTIC CONNECT L6-1/8"
525	X1689525	PLASTIC CONNECT 6Y
526	X1689526	PLASTIC CONNECT C6-1/8"
527	X1689527	BUSHING 10MM
528	X1689528	AIR VALVE 1/8"
529	X1689529	SOLENOID VALVE 1/8" X 220V
530	X1689530	PLASTIC CONNECT L6-1/8"
531	X1689531	CONNECTOR
532	XPN04M	HEX NUT M4-0.7
533	X1689533	PRESSURE GAUGE K-1000FR2
534	XPW03M	FLAT WASHER 6MM
535	X1689535	TENSION CYLINDER 63 X 40ST
536	X1689536	SILENCER 1/4"
537	X1689537	PLASTIC CONNECT L6-1/8"
538	X1689538	BRASS NUT 3/8"-UNF X 1/4"
539	X1689539	PLASTIC CONNECT L6-1/4"
540	X1689540	SWITCH VALVE BLOCK



REF	PART #	DESCRIPTION
601	X1689602	LOCK
602	X1689602	TERMINAL BOARD
603	X1689603	GROUND WIRE PANEL
604	X1689604	MAGNETIC CONTACT
605	X1689605	MAGNETIC CONTACT
606	X1689606	MAGNETIC CONTACT
608	X1689608	CURRENT TRANSFORMER
609	X1689609	CONTROL PANEL
610	X1689610	TERMINAL BOARD
611	X1689611	TERMINAL BOARD
612	X1689612	WIRE SLEEVE

REF	PART #	DESCRIPTION
613	X1689613	WIRE SLEEVE
614	X1689614	WIRE SLEEVE
615	X1689615	WIRE CONNECTOR (IN)
616	XPN01M	HEX NUT M6-1.0
617	X1689617	CONTROL BOX
618	X1689618	WIRE SLEEVE
619	X1689619	WIRE SLEEVE
620	X1689620	WIRE SLEEVE
621	XPS24M	PHLP HD SCR M6-1.0 X 10
622	X1689622	LOOM COVER



REF	PART #	DESCRIPTION
701	XPN03	HEX NUT M8-1.25
702	XPW01M	FLAT WASHER 8MM
703	X1689703	SUPPORT LINING
704	XPW03M	FLAT WASHER 6MM
705	X1689705	RETRACTABLE ROD
706	XPN02M	HEX NUT M10-1.5
707	XPN27M	HEX NUT LH M10-1.5
708	X1689708	ECCENTRIC SHAFT RH
709	XPSB62M	CAPSCREW M10-1.5 X 12
710	XPW04M	FLAT WASHER 10MM
711	XPR47M	EXT RETAINING RING 13MM
712	X1689712	ROLLER SHAFT
713	XPRP28M	PIN 5 X 40MM
714	X1689714	KNOB
715	XPR39M	RETAINING RING S8
716	X1689716	PLASTIC COVER

REF	PART #	DESCRIPTION
717	XPLW04M	LOCK WASHER 8MM
718	X1689718	TABLE SUPPORT
719	XPS11M	PHLP HD SCR M6-1.0 X 16
720	XPN01M	HEX NUT M6-1.0
721	XPSS10M	SETSCREW M10-1.5 X 20
722	X1689722	ECCENTRIC SHAFT LH
723	XPLW06M	LOCK WASHER 10MM
724	XPN02M	HEX NUT M10-1.5
725	XPLW06M	LOCK WASHER 10MM
726	X1689726	INFEED TABLE FRAME
727	X1689727	ROLLER BUSHING
728	X1689728	CONVEYOR TABLE
729	X1689729	EMERGENCY BRAKE PANEL
730	X1689730	BRAKE ROD
731	X1689731	SPRING

WARRANTY CARD



Name _____
 Street _____
 City _____ State _____ Zip _____
 Phone Number _____ E-Mail _____ FAX _____
 MODEL # _____ Serial # _____

The following information is given on a voluntary basis and is strictly confidential.

1. Where did you purchase your SHOP FOX® machine?

 _____ Air Compressor _____ Panel Saw
 _____ Band Saw _____ Planer
 _____ Drill Press _____ Power Feeder
 _____ Drum Sander _____ Radial Arm Saw
 _____ Dust Collector _____ Shaper
 _____ Horizontal Boring Machine _____ Spindle Sander
 _____ Jointer _____ Table Saw
 _____ Lathe _____ Vacuum Veneer Press
 _____ Mortiser _____ Wide Belt Sander
 _____ Other _____
2. How did you first learn about us?
 _____ Advertisement _____ Friend
 _____ Mail order Catalog _____ Local Store
 _____ World Wide Web Site
 _____ Other _____
3. Which of the following magazines do you subscribe to.
 _____ American Woodworker _____ Today's Homeowner
 _____ Cabinetmaker _____ Wood
 _____ Family Handyman _____ Wooden Boat
 _____ Fine Homebuilding _____ Woodshop News
 _____ Fine Woodworking _____ Woodsmith
 _____ Home Handyman _____ Woodwork
 _____ Journal of Light Construction _____ Woodworker
 _____ Old House Journal _____ Woodworker's Journal
 _____ Popular Mechanics _____ Workbench
 _____ Popular Science _____ American How-To
 _____ Popular Woodworking
 _____ Other _____
4. Which of the following woodworking/remodeling shows do you watch?
 _____ Backyard America _____ The New Yankee Workshop
 _____ Home Time _____ This Old House
 _____ The American Woodworker _____ Woodwright's Shop
 _____ Other _____
5. What is your annual household income?
 _____ \$20,000-\$29,999 _____ \$60,000-\$69,999
 _____ \$30,000-\$39,999 _____ \$70,000-\$79,999
 _____ \$40,000-\$49,999 _____ \$80,000-\$89,999
 _____ \$50,000-\$59,999 _____ \$90,000 +
6. What is your age group?
 _____ 20-29 _____ 50-59
 _____ 30-39 _____ 60-69
 _____ 40-49 _____ 70 +
7. How long have you been a woodworker?
 _____ 0 - 2 Years _____ 8 - 20 Years
 _____ 2 - 8 Years _____ 20+ Years
8. How would you rank your woodworking skills?
 _____ Simple _____ Advanced
 _____ Intermediate _____ Master Craftsman
9. How many SHOP FOX® machines do you own? _____
10. What stationary woodworking tools do you own? Check all that apply.

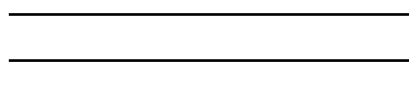
11. Which benchtop tools do you own? Check all that apply.
 _____ 1" x 42" Belt Sander _____ 6" - 8" Grinder
 _____ 5" - 8" Drill Press _____ Mini Lathe
 _____ 8" Table Saw _____ 10" - 12" Thickness Planer
 _____ 8" - 10" Bandsaw _____ Scroll Saw
 _____ Disc/Belt Sander _____ Spindle/Belt Sander
 _____ Mini Jointer
 _____ Other _____
12. Which portable/hand held power tools do you own? Check all that apply.
 _____ Belt Sander _____ Orbital Sander
 _____ Biscuit Joiner _____ Palm Sander
 _____ Circular Saw _____ Portable Planer
 _____ Detail Sander _____ Saber Saw
 _____ Drill/Driver _____ Reciprocating Saw
 _____ Miter Saw _____ Router
 _____ Other _____
13. What machines/supplies would you like to see?

14. What new accessories would you like Woodstock International to carry?

15. Do you think your purchase represents good value?
 _____ Yes _____ No
16. Would you recommend SHOP FOX® products to a friend?
 _____ Yes _____ No
17. Comments: _____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE



Place
Stamp
Here



WOODSTOCK INTERNATIONAL, INC.
P.O. BOX 2309
BELLINGHAM, WA 98227-2309



FOLD ALONG DOTTED LINE

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

